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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

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CXXVII.—No. 4261. OCTOBER 3, 1924.

PEACE IN THE BUILDING INDUSTRY

IT is reported that at the annual general meeting of the National Federation of Building Trade Operatives a resolution was passed unanimously to the effect that the entire operative fraternity would resign from the National Wages and Conditions Council. If this course is to be adopted it is for the time being the end apparently of national settlements of disputes in the building trade, and the position may be a serious one. For the National Wages and Conditions Council has been for some years now the only body empowered to settle disputes, in so far as it had been agreed that no strike or lock-out should be declared until the points in dispute had been referred to the joint national body for settlement. With this body removed, the way would be clear for constant local disputes and consequent dislocation of the industry.

At first sight it would seem to be a retrogressive course. The history of the organisation of the building trades, both with the employers and the operatives, has shown a tendency away from local government and towards national legislation for the whole. Consequently, to revert to sectional demarcations must seem a retrogressive step, though it must be remembered that for the last two years there has appeared to be a growing dissatisfaction with the joint council, judging from the fact that it has been necessary to submit the Council's findings to arbitration on more than one occasion.

To review very briefly the history of the movement may prove useful at such a crisis. In 1916, in common with a feeling general throughout the industry, both sides became impressed with a desire to render their full share towards the creation of a new and better industrial order. Towards the end of 1916 proposals to this end were circulated and submitted to the National Federation of Building Trades Employers by the Building Trades Council. Out of these arose the Building Trade Parliament, which, though it preceded, soon became assimilated to, the Whitley Councils, which from 1917 onwards were set up in every industry with a view to obtaining industrial peace. At this point a quotation from the introduction to the scheme for the Builders' Parliament may have an interest as bearing on the present, and the resolution reported above of withdrawing from the National Wages and Conditions Council: "Both employers and employed," says this introduction, "have been the unwilling victims of a system of antagonism that has organised industry on the lines of a tug-of-war and permeated the whole national life with sectional habits of thought and outlook."

If that was the condition in 1916, it would not seem a progressive step to revert to sectional settlement in 1924. When finally set up in May of 1918, the Parliament became known as the Industrial Council for the Building Industry, and the agenda included "Regularisation of Wages—Prevention of Unemployment—Employment of Partially Disabled Soldiers—Technical Training and Research—Continuous and Progressive Improvement—Publicity. Though the Parliament continued for over four years, and effected a certain amount of good, it came to an end, as all such bodies must which exist only so long as a mutual trust continues, when that trust and confidence ceased. The death blow was administered by the Foster Report, and arising out of that the National Building Guild.

Out of the ashes of the Parliament, and even before its final decease, arose another joint body known as the National Wages and Conditions Council, functioning, as its name implies, in the settlement of disputes concerning wages and conditions of labour. Education and advancement were for the time being in abeyance. For a time this functioned well, all adjustments of wages being automatically arrived at on an agreed scale known as the sliding scale, based on the cost of living figures at the time of the periodic adjustments. But here again lack of confidence brought disagreement even with the interpretation of the meaning of terms of the document, which both sides had previously agreed as being the constitution of the joint council. As it must be presumed that both sides knew and understood what they were agreeing to at the time of the establishment of the Council—it was certainly discussed in sufficient detail—the failure to function can be only due to a loss of mutual confidence. So that in 1924 the industry is practically where it was in 1916. Circumstances actuate in wave motions, and the waves have rolled back. But as surely as they are now in retirement so surely will they progress forward again.

May this not be, therefore, yet another opportunity for a further effort towards the permanent betterment of the conditions of the industry? And in the making of that effort will it not be wise to give the fullest reflection possible to the cause of disruption in all past effort? It has been suggested in our columns on various occasions that the composition of the joint bodies may not have been sufficiently wide in its embrace, and that there are more than two parties that go to make up the building industry. There are three parts, if not four. And is it not reasonable to suggest that all parties concerned should be represented upon a joint board that is empowered to settle the conditions of that industry in which these parties are concerned? Can any lasting settlement ever be effected by two parties who conceive their interests to be opposed? Is not the mediation of some third party essential to such settlement? The final resort to arbitration, as in the case of the Fraser award and again more recently Lord Buckmaster's intervention, after all the avenues afforded by the National Wages and Conditions Council had been explored and failed in providing a solution, would seem to prov beyond doubt that a third party as mediator is essential.

If this is so, if it is a fact that no permanent ttlement can be reached between two parties to an industry and resort has to be made to a third party, to whom can such appeal be made more suitably than to a third party to the industry where such party exists? In the building trade this third party does exist, *i.e.*, the building owners, represented by their architects. To whom could it be more suitable to make final appeal in any matter in dispute between the employers and the operatives than to the architect? Who more fitted by training, knowledge, education, and experience? We should like to see representatives of the profession come forward with a properly considered scheme for the constitution of a joint board composed of all parties, to take the place of those composed only of two and which have failed: and let these representatives proceed with the requisite energy to see that their efforts meet with recognition and beneficial result.

NOTES.

Standardisation in Housing.

In order to meet the urgent need of houses we see it argued that standardisation is necessary, with its accompaniment of monotony, if nothing else unpleasant. If the demand for houses can be met in no other way than that of mass production—which may be questioned—it is at any rate of the first importance that the original design shall be one which is in itself becoming. It is, unfortunately, the case that we have had to associate mass production with great poverty of taste, and it is evidently desirable that very much more care should be taken to secure some decency of form in what is to be reproduced so many times. In the case of pottery, the mass production of teapots and jugs, for instance, it is no great evil if the original design from which so many thousands are to be produced is in good taste and fitted to its use, and it is towards this that the manufacturer is moving, replacing foolish and exaggerated shape and vulgar ornament with better design. It appears to us that any scheme for mass production of houses should not be broadcast, but limited to districts taking note of local characteristics. Thus a standardised building suited to Glasgow would be unsuitable, let us say, in York, where local characteristics are different. When we come to consider how, in the first instance, to secure good design in all the parts of small houses or cottages, it is more difficult, for without sound architectural guidance—unless the matter be first entrusted to architects to scheme out something appropriate—we are likely to suffer from an accession of ugliness.

The Burden of Housing.

MR. J. E. DROWER'S series of articles in *The Times* under this heading show a refreshingly broad outlook and should be of the greatest value in familiarising the public with our problems. We find among the fundamental requirements in a house that "health, comfort and decency must be considered, and the eye must not be displeased." This sound advice shows how far we have advanced during the last few years, for a very short time ago one would have been branded as "unpractical" if one had suggested that there was the slightest objection to ugliness in a house. We are filled with envy when we hear that we must beware of flat cement roofs because "the rooms under are insufferably hot in summer." We wish we had been under one of these roofs last August!

Ivy.

THERE exist two principal ways of destroying buildings, both equally efficient, but one quicker than the other—(*a*) dynamite, (*b*) ivy. The destruction wrought every year by the latter would be astounding could it be put into figures. Once ivy has attained a real grip on a building it will send its roots into every crevice of the wall, sucking the mortar into dry dust; its tendrils will wedge the stones apart, and its branches act as sails to catch the wind. The result is inevitable. Sooner or later during a storm the building collapses and everyone attributes this to the action of time instead of attaching the blame to the ivy. But even if ivy had not these deadly attributes there would be nothing beyond a vague sentimentality to urge in favour of its existence even on old ruins that possess the slightest architectural value. Ivy has its place and is suitable enough when restricted to ruined walls of no value or interest or on dead tree stumps. There is no doubt, knowing what we do about ivy and its dangers, need of a great deal more circumspection as to its control.

A £32 Cottage.

THERE is a good deal of interest in the statement of a correspondent in the *Times* who describes how he bought a four-roomed thatched cottage, built about 40 years ago, and sold by two labourers "who, I imagine, built it" for £32. The price included the freehold land and garden. A few years later it changed hands at £45, so there was no appreciation worked by time in the character of the building. The point is, as the correspondent adds, "that it is now occupied by a friend of mine, and though it has not 'modern conveniences' it appears 'to be incomparably warmer and more comfortable to live in than the cottages lately built in the village by public authority at 30 times the cost.'" Mother wit seems here to have been capable of more than all the machinery of organisation, and it suggests the consideration of

Bridgwater War Memorial: Details. MR. JOHN ANGEL, Sculptor. (*See also p.* 507.)

Bridgwater War Memorial: Detail.
MR. JOHN ANGEL, Sculptor.

how to give more play for this native quality; this initiative of the handy man, to use his brains and apply his independent methods to the problem of housing. We are reminded of additions made some years ago to a country house, involving much reconstruction and alteration, including a 40 ft. chimney stack, which alterations and additions were accomplished by village labour, a handy man, who could thatch or lay bricks, or erect a fence as the need occurred; the carpenter, a labourer also from the village, and a plasterer called in from the adjacent town. Under lay guidance the work was executed in a very unconventional way, but many were the cars which pulled up in the by-road that passed the house to see this effort of village craftsmanship, which, however, was usually mistaken for ancient work in spite of the original intention of the workers.

The Need of Men. SOMEHOW or other we have to find means of liberating more of this personal initiative. The correspondent goes on to inquire "Can nothing be done to encourage individual effort? An Englishman can still use his hands if he is given a chance." All this is well worth pondering over. Our towns and country villages abound in men of robust practical ability, learned in a hard school and fit to deal with such work, but they are not used. Organisation fails us if it fails to discover men, or uses them so little, or so fetters them that they have no power of initiative granted them. We feel in so many instances that the housing scheme reveals the machine rather than the man. We have had enough experience of the so-called rude and uneducated to realise that there often lies in him a power to do things lacking in the more theoretically trained.

National Monuments. THE fact that some three hundred monuments are now noted as under the protection of the Office of Works is indication enough of the value to be attached to the persistent efforts in recent years for the preservation of places and things which by reason of beauty, tradition, or association claim a vital interest from the nation. Besides subjects of some outstanding importance, however, there are many which can only be preserved by the good will and intelligence of private owners, and the value of many modest but valuable old buildings is often ignored or overlooked unless the vigilance of a Society or a professional man is pertinently exercised. We should all be interested for the common good in helping to identify and preserve those relics of the past which still add to the charm and interest of our modern life.

Industrial Truce. IT is, perhaps, too readily assumed that to delay an evil may be to put it off altogether. But if a truce in industrial disputes could be arranged on such terms as would allow time and opportunity for trade to revive, should we even then be in a better position to estimate fairly and rightly the proper functions and values of capital and labour and of their relations to each other? We doubt it unless we all give up the aim of making political capital our real objective. Then, of course, if there be any value in having a truce is it not in the hope that it may be made perpetual?

The 24th Division War Memorial, Battersea.
MR. ERIC H. KENNINGTON, Sculptor. (*See p.* 506.)

GENERAL NEWS

Professional Announcement.

Mr. G. Alan Fortescue, A.R.I.B.A., has removed to 46, Dover-street, W. Telephone: Gerrard 3415.

The Berks, Bucks and Oxon. Architectural Association.

The "Year Book" of this Association has recently been issued. The Council state the year 1923 was one of steady progress in numbers and in activities; the membership, exclusive of honorary members, now amounts to 141.

Architects' Estates.

Mr. Arthur Eaton, of The Summit, Burton-road, Derby, architect and surveyor (net personalty £4,142), £6,594.

Mr. George H. Barrowcliff, of Loughborough, architect and surveyor (net personalty, £2,024), £10,482.

New Methods of Building.

The Committee which has been set up under the chairmanship of Sir Ernest Moir to inquire into new methods of house construction met recently. With a view to expediting their investigation the Committee would be glad to receive as soon as possible any further proposals for new systems of house building or for new materials. All communications on the subject should be addressed to the Secretary, Mr. T. H. Sheepshanks, Ministry of Health, Whitehall, S.W.1.

London University Lectures.

Dr. Percy Dearmer will lecture on the ten Tuesdays of the autumn term on "A Summary of Ancient Art," at King's College, Strand, commencing at 5.30 p.m. on October 7. The lectures, which will be illustrated by lantern slides, will deal, amongst other things, with the architecture of ancient Greece and Rome. Admission for non-members of the University is by ticket (price 1s.) obtainable at the door. A syllabus of the lectures can be obtained, post free, from the Lecture Secretary, King's College, Strand.

Liverpool.

The Medical Officer of Health has just issued his report for 1923, with observations up to June 30, 1924, in which he states that the position of the housing question is still an unhappy one. In the ten years preceding 1914 the number of houses built was 17,743, while during the ten years succeeding that period only 7,576 have been erected, although during these latter years the population has increased by 59,846, so that Liverpool at the present time is worse off as regards housing accommodation by rather more than 10,000 houses.

Proposed Town Hall, Greenwich.

The Greenwich Borough Council recently gave consideration to a proposal to purchase the freehold of Charlton House, the residence of Sir Spencer Maryon-Wilson, Bart., and other buildings, together with the land, for £60,000. The special committee are of the opinion that, if the property is purchased, the question of the provision of additional houses should be uppermost. They also consider that the mansion is suitable for a town hall, and would be large enough to house every department of the Council. The cost of a new town hall, it is estimated, would not be less than £100,000.

Obituary.

Mr. J. J. McDonnell, F.R.I.A.I., died recently at Belfast. Born in 1857, he was a pupil of the late Mr. Timothy Heavy, F.R.I.A.I. The late Mr. McDonnell designed many Roman Catholic churches, convents, schools, &c., throughout the North of Ireland, the church and monastery of the Redemptorists at Clonard, Belfast, and the new Church of Our Lady of Lourdes at Toombridge, co. Antrim. St. Paul's and St. Brigid's Churches, Belfast, and the churches at Kilcoo and Teconnaught, co. Down were built to his designs. A member of the Royal Institute of Architects since 1884 and in later years a Fellow, he was a former President and member of the Council of the Ulster Society of Architects.

Exhibition Notes.

A rather exceptional little show of water colours is on view at the Grosvenor Galleries, in Bond-street. The delicate charm of drawings by Hester Frood will be much appreciated; and there are a number of drawings by Muirhead Bone, some of exceptional quality. His expression of the Doric columns in the Corinth drawing and a forcible water colour of Constantinople, with a sea view of Stromboli are things which arrest one amongst much that is vivid and attractive. James McBey has several telling sketches; and Sir D. Y. Cameron's small drawings lend distinction to the collection.

Silver Crozier for Maryland Cathedral U.S.A.

Designed by MR. EDWARD SPENCER.
(*See p.* 508).

COMPETITION NEWS

Freemasons' Hall, Nottingham.

Messrs. John Howitt & Son have been successful in a competition for the erection of a new hall in Goldsmith-street, Nottingham.

Bradford Masonic Hall.

The full result of this competition is as follows: (1) £200, Messrs. Ross & Briggs, 78, Manningham-lane, Bradford; (2) £150, Messrs. Eric Morley and Wm. Illingworth, Market-street and Sunbridge-road, Bradford; (3) £100, Messrs. Longbottom & Tebbs, Commercial-street, Halifax.

Christian Science Church, Southport.

Designs are invited for a new church and Sunday school at the First Church of Christ Scientist, Southport. Premiums of £75, £50 and £30 are offered respectively. The assessors are Messrs. J. E. Sanders & Son, A.R.I.B.A., 219A, Lord-street, Southport, to whom application should be made, accompanied by a payment of 10s., returnable only to those who send in designs.

Barrow Hill Memorial Club.

Applications are invited for plans and specifications for the erection of a club, by way of extension of the existing Barrow Hill Memorial Club, near Chesterfield. Approximate cost, £4,000. Particulars can be obtained from the Secretary of the Club.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Masonic Hall (May 1). Manchester Art Gallery (Jan. 20; Aug. 22). Concrete Cottages (Oct. 31; Sept. 19).

THE 24TH DIVISION WAR MEMORIAL, BATTERSEA

A London sculptor, Mr. Eric H. Kennington, has designed an original memorial to be placed in Battersea Park, London, of a famous London Division. Three men of the Division stand closely together, with hands clasped and in full accoutrement. At their feet is a huge snake which they have together subdued. Although the men are uniformed, this does not obtrude nor hide their essential humanity. They stand straightly and firmly on a base inscribed boldly with name and date. This in its turn is supported on a circular socle, its ornament being the crests, badges and symbols of the regiments, redesigned by the sculptor into a frieze. The Portland stone column was carved by the sculptor, who worked from a model in plasticine in which the men were under 14 in. in height; in actuality the group is 6 ft. 9 in. by 3 ft. 4 in. The inscription is by Miss Sampson, who helped with the insignia around the cylindrical base.

CORRESPONDENCE

The Architect's Debt to Ruskin.

SIR,—All those who acknowledge their debt to Ruskin's teachings will be gratified by Mr. Halsey Ricardo's paper in the last issue of *The Builder*, and by your own references to it. This all too rare sympathetic attitude leads me to suggest that those who wish to get back to Ruskin will be more successful if they take up "The Two Paths," "Lectures on Art," or other of the lesser works, rather than attempt to re-read "The Stones of Venice" or the "Seven Lamps." Much of Ruskin's subsequent work is unknown to many who have absorbed his monumental writings, and in many respects the smaller pieces are even more important. There is, too, his very first piece of architectural criticism, the "Poetry of Architecture," which is a unique source of inspiration for the architectural student.

MAX JUDGE.

Bridgwater War Memorial. MR. JOHN ANGEL, Sculptor.

[The illustrations of the Bridgwater War Memorial in this issue are photographs of the plaster cast. The memorial is in bronze.]

THE CHURCH CONGRESS EXHIBITION

No centre in England perhaps could have been chosen with such wonderful associations in regard to the story of the Church as Oxford. The whole atmosphere of the fine historic city is just the right one. Only once before has the Church Congress been held there, and that was so long ago as 1862, the year following its institution.

The Exhibition, which always takes place side by side with the Church Congress, is this year held in a specially erected building, it being impossible to find in Oxford a hall large enough for its display. The governing body of Christ Church kindly loaned a site in the Merton Field, Rose-lane. It is very near the Botanical Gardens and easily approached from the High-street. Here the two distinct sections of the Exhibition are arranged, the General and the Loan.

The General Exhibition.

This consists not only of a large number of exhibits of many of the larger and more important Church societies and religious and philanthropic organisations, but also consists of the stalls of a great number of well-known church furnishers, church publishers, noted artists and guilds of craftsmen. It is a very great opportunity for the display of really fine work. The publishers and their printers and binders generally do excellently. The help societies also make splendid displays of their activities; but somehow, with just a few exceptions, the work shown by the firms and their craftsmen in metal and wood, stone and marble, fail to impress, and the level is certainly not so good as it should be.

Generally, the craftsmanship is better than the design—this, over and over again, fails badly; at times we are back in the 60's and 70's of the last century. The lettering of many of the memorials shown is extremely poor. The fine work of Edward Johnston and Eric Gill has in no way been studied. Now students in all our craft schools are taught how to letter well. Why do not these firms obtain their services?

The silversmith's craftsmanship is certainly of a very high level, as illustrated in two or three of the artists' exhibits; perhaps nowhere could such fine work be seen. The very charming altar cross, candlestick and vases in silver, made for the Chapel of Wickham Abbey School, are quite perfect in their way. These have been designed by Mr. Edward Spencer, and they were made by the craftsmen of the Artificers' Guild, of Conduit-street, W. Their stall is filled with some of the most beautiful work of the modern silversmith. A crozier, designed also by Mr. Spencer and made by the Guild, has recently been sent to the States. It was made for the Cathedral of Maryland, and is excellent in its design, outline and execution. Most beautiful chalices, alms dishes, and a wonderful variety of other church and secular plate is extremely well shown.

Another well-known gold and silversmith, Mr. Omar Ramsden, is very well represented by many choice pieces of fine design and excellent craftsmanship. He pleads "that such vessels and ornaments as we may add to our cathedrals and churches should be worthy to be handed down to future generations as representative of our epoch." He has devoted himself to the study of ecclesiastical and ceremonial plate for many years and has executed many fine things. A large silver cross is shown by him, made for St. Michael's, Chester-square, W., a replica of the one that was recently stolen; and there are exhibited a great number of other excellent pieces, particularly fine altar crosses and candlesticks, as well as chalices and hanging lamps.

Messrs. Barkentin & Krall exhibit a great number of more orthodox pieces; nearly all are greatly influenced by old work. A fine rock crystal and silver cross is shown with its two charming candlesticks. Last year this firm made the remarkable silver reredos for the Lady Chapel of Saint Mark's Church, Philadelphia, U.S.A. Its width is nearly 7 ft., and its height 11 ft. Messrs. Keith & Co. and Messrs. J. Wippell & Co. also exhibit silversmiths' work. On the whole, with the exceptions mentioned, most of the other metal work is not very good.

The Bromsgrove Guild show details of two interesting windows, recently placed in the Cathedral Church of Hereford. Each consists of four lights, and they were designed by Mr. A. J. Davies. They are in memory of Bishop Stanbury, and certainly are extremely interesting specimens of recent glass work. There is a great deal of other glass work shown, but little of it calls for any note.

The Royal School of Needlework show some extremely good examples of their craft. A hanging, for the altar of the Lady Chapel of Southwark Cathedral, which has been kindly lent by the Dean and Chapter, could hardly have been more beautifully designed or worked. The designer was Mr. J. N. Comper. The subject is the Crucifixion.

Over it is placed a very fine frontlet for Hatfield Parish Church; in its original position it comes over a rose brocade frontal. The lettering is admirable. The designer was Mr. W. H. R. Blacking. The Great Banner for Westminster Abbey is also very good. It was given by the Girls' Friendly Societies, in memory of their men-folk who fell in the Great War. This also was designed by Mr. Comper.

There are other exhibits of needlework, but the above call for special comment.

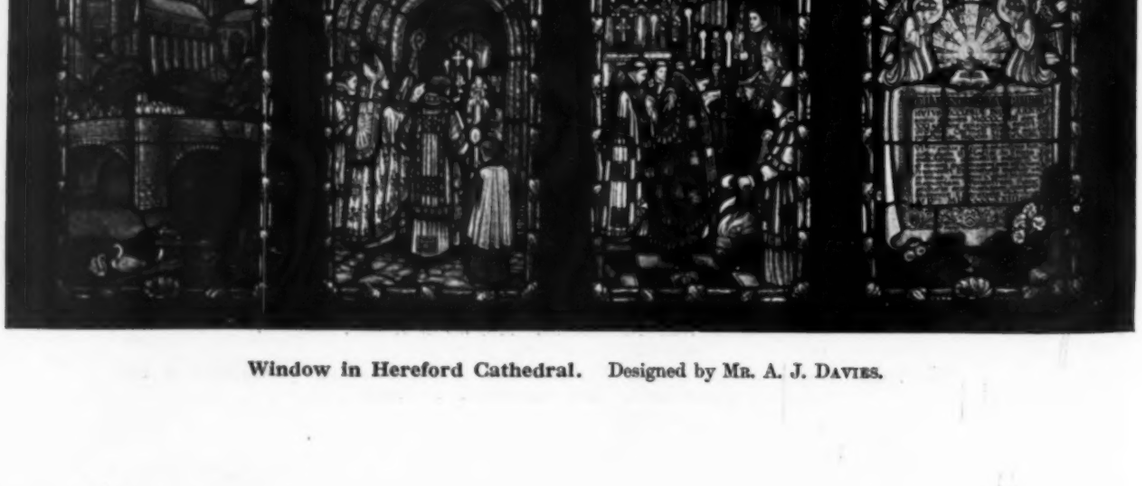
The Loan Collection.

The section of the Exhibition which a great many of its adherents look perhaps most forward to is the general display of ancient church plate, service books, manuscripts, vestments and other needlework which is annually gathered from the district in which the meeting is held. Each district has its own peculiar and distinctive characteristics of type and workmanship, and the Oxford district has its own traditions quickly recognisable in much of its plate. It is this that makes this annual display so fascinating. And again, there is another great advantage to the lover of these beautiful works of art of the past: so many of these fine pieces would never be seen except by a very few had not these exhibitions been instituted. This year these treasures are displayed in an annex of the great temporary hall and, as is usual, there are very many beautiful pieces shown illustrating the art of the silversmith's craft. There are just as strikingly beautiful pieces made previous to 1500, but the greater number are of the centuries after.

The vicar and churchwarden of Marston, Oxford, lend one of the earliest pieces of plate shown (34). It is supposed to have been made for secular purposes originally, but for more than 460 years it has been used as a chalice. It belonged to a wealthy Oxford bailiff and butcher who died before 1478. It is nearly 6 in. high, and weighs 12 ounces. The mouth of the bowl is 4½ in. across and 2½ in. in depth. The design of the base is unusual and may be compared with the fifteenth-century cocoanut cup at Caius College, Cambridge.

A splendid chalice (42) is lent by the vicar and churchwardens of Old Hutton, Kendal. It is a fine example of great gracefulness and simplicity. The knob of the stem bears six representations of the face of our Saviour, a very unusual occurrence. Its date is thought to be about 1460, but there are no marks at all upon it. The foot is beautifully shaped and engraved.

A similar chalice comes from Little Faringdon (68). It is nearly 6 in. in height and the bowl is 4 in. in diameter. It is parcel gilt, and the whole is a fine example of English craftsmanship. Another one, from the church of St. Faith, Bacton, Herefordshire (320), is also of the same type and period (1470). It is



Window in Hereford Cathedral. Designed by MR. A. J. DAVIES.

Chalice and Paten.
Designed by MR. OMAR RAMSDEN.

thought to have been worked by the same hand that made the celebrated one at Nettlecombe. The great beauty of the design is apparent and the chasing of the figures is characteristic of the finest fifteenth-century work. These four fine chalices are the gems of the exhibition, and the only examples of pre-Reformation ones exhibited. Another very rare early piece is the copper-gilt paten lent by the vicar and churchwardens of Bredhurst, Chatham (244). It is thought to be early thirteenth century. The cathedrals of Chichester, Lincoln, Worcester and York all have patens of a similar type and date.

A remarkable cup is loaned from Wraxall Church, Dorchester (324). Its height is only 4¾ in. The bowl is nearly straight-sided and the base tapers to the bowl very effectively, but the bowl and the base and its stem are engraved with simple lines only. It is now used as a chalice, but obviously it was hardly so intended.

There are also exhibited very many fine cups and flagons of the two following centuries. The communion plate from Pattishall Church, Towcester (259), consists of a complete set of five pieces, which include a chalice and paten, a flagon, a tazza and a bowl. It is decorated with repoussé work, finely chased, the whole being of silver-gilt. It was presented by the Duchess of Dudley in 1663.

Another fine standing cup and flagon of perhaps about the same date is lent by the vicar and churchwardens of West Pennard, Glastonbury (154-5). Both are elaborately enriched with repoussé floral designs, finely chased. They are supposed to have been domestic plate, and they were given to the church in 1719.

The silver-gilt ciborium from the Church of Ashby-de-la-Zouch (84) is of unusual shape, and is rather foreign in appearance. It is very large, weighing 41 oz. A similar one is amongst the treasures of Lichfield Cathedral. It is recorded as a chalice. "The Right Honble. Countess of Huntingdon gave it on August 28, 1677." It is dated 1676, but, following Gothic lines, it looks of earlier workmanship.

As is natural, the plate of the time of Queen Elizabeth is extremely well represented. This was the great period for replacing the destroyed treasure of the churches. All the early pieces of this period, although so different in design and workmanship, are beautiful in their own way. The great ceremonial having changed, they also have changed—they have become communion cups instead of the splendid chalices.

From the church of Fifield-cum-Idbury, Oxford (66), is loaned a beautiful one with its cover, both dated 1576; and another is loaned by the vicar and churchwardens of Leigh Delamere, Wilts, of similar fine proportions and workmanship. It is dated 1577.

The plate sent from Easton Maudit Church, Northampton, is of silver-gilt, and consists of the chalice and paten and the flagon. The height of the chalice is 11⅞ in., and the date is 1630. The flagon is dated 1672, and its height is 12½ in. These are very fine examples of the period.

A glass cup in a leather case also is loaned by the same church. It belonged to Bishop Morton. It is perhaps of rock crystal and of Italian workmanship. It is only about 5 in. high and elaborately engraved and gilded. It is lent by the rector and churchwardens.

The very fine silver-gilt grace cup of the City Church, Oxford (400), is now used as a chalice. It was made in 1606 and weighs nearly 20 oz., standing 16 in. high. It is a splendid piece of plate, and is the one fine steeple cup in the exhibition.

The great communion cups and flagons which followed from, say, 1680 to 1800, are very well illustrated. Two silver-gilt flagons dated 1718 are loaned from the church of Aldermaston, Reading, and one fine one is sent from the Abbey Church at Tewkesbury: it weighs over 54 oz., and was given in 1688. Another is loaned from Kirtlington Church, Oxford, and was made in 1723. One from the Church of Steeple Ashton, Trowbridge (174), made in 1736, weighs 84 oz., and is more than 14 in. in height.

At this period very little difference seems to have been shown between the plate used for the services of the church and the plate for domestic, college, or city companies' use; the secular type predominated. The fine subtleties of the early pieces become lost entirely and are not attempted again until the craftsmen of the Mid-Victorian period, under the influence of the Gothic revival and its leaders—Pugin, Barry, Scott, Street, Butterfield, and many others—again revert to old types out of which has sprung a tradition which has inspired such fine modern work of to-day. The early men were followed by Bodley, Bentley, the younger Scott, Sedding and others, and they did much to induce the individual craftsmen to produce charming things that have been gradually placed in our cathedrals and churches; and men like Henry Wilson, Bainbridge Reynold, Paul Cooper, Edward Spencer, and Omar Ramsden have all helped to continue the fine tradition of English metal craftsmanship.

In addition to the plate are gathered and exhibited excellent examples of old Italian and Spanish needlework as well as English. Some very recent work is also shown. The pall made in 1918, designed by Mr. C. G. Hare and executed by Messrs. Watts & Co., is a fine example. It belongs to the English Church Union. The other fine pall shown is lent by the Dean and Chapter of Westminster Abbey (49). It was designed by Mr. W. D. Caröe, F.S.A., and executed by Miss M. Hollier. It was given by the Actors' Church Union. Other fine pieces of needlework—two stoles—have been designed by Mr. J. N.

Altar Cross and Candlesticks, Wickham Abbey School Chapel.
Designed by MR. GOWAN SPENCER.

Ciborium in Hand-wrought, Chiselled and Repousse Silver Gilt.

Designed by MR. OMAR RAMSDEN.

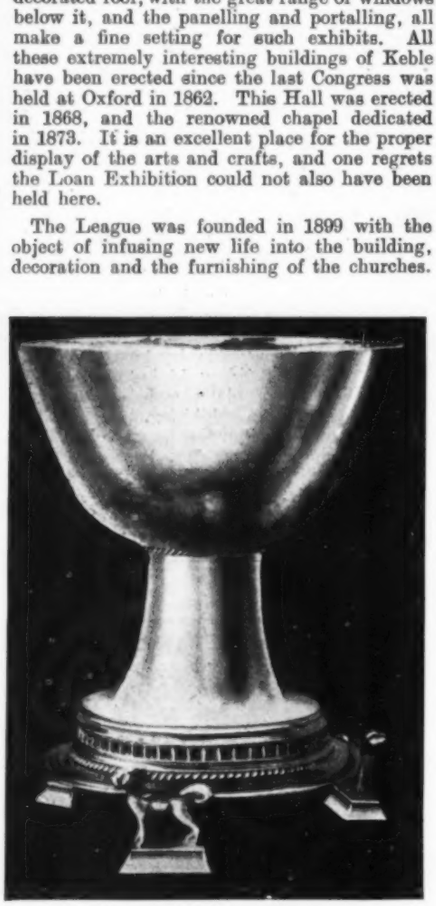
Comper, and are loaned by Worcester College, Oxford.

The setting provided for this exhibition is hardly worthy the great treasures gathered together. The exhibits are crowded; at least four cases more should have been provided. It is perhaps unwise not to confine the exhibits from the district and neighbourhood; a general collection is not wanted; it is the work of the locality that is so fascinating. Types of local craftsmanship should be sought for, and then it would be possible to compare them with other districts and careful study would be possible. The offer of a piece from a distance it would be well to resist. An old hall, such as a college hall, is the real setting for these precious things, and it is a little unfortunate that one could not be obtained.

The Exhibition of the Church Crafts League.

The exhibition of the Church Crafts League is held in the Hall of Keble College, one of Butterfield's great successes. The very fine decorated roof, with the great range of windows below it, and the panelling and portalling, all make a fine setting for such exhibits. All these extremely interesting buildings of Keble have been erected since the last Congress was held at Oxford in 1862. This Hall was erected in 1868, and the renowned chapel dedicated in 1873. It is an excellent place for the proper display of the arts and crafts, and one regrets the Loan Exhibition could not also have been held here.

The League was founded in 1899 with the object of infusing new life into the building, decoration and the furnishing of the churches.



The Marston Chalice.

Its aim is to act as a medium of communication between the Church authority and the artist. Its object is excellent. Ruskin and Watts were early patrons, and it has always exerted a very great influence.

At once, on entering the Hall, the great tryptich at the far end arrests attention. It is intended for the high altar of St. Teilo's Church, Cardiff. It is not quite complete, but a good detail drawing hanging near it shows the finished design well. It is of English oak, the central panel with a figure of Our Lord with adoring angels on each side; the wings also contain low relief figures of angels also. The whole is splendidly gilded and coloured. It certainly should form an extremely striking figure at the east end of the church. The architect is Mr. J. Coates Carter, and it was made by Messrs. Boulton & Sons. Quite near is another fine reredos with its side screen. It is for Buckland Church, Berkshire, and is apparently designed to take its place below a great window. It is treated in a thoroughly English traditional manner, having just a row of niches with their figures extending its whole width. They are all richly gilded and coloured. The crowning, cresting and cornice are apparently in ebonised oak, and give a pleasing effect to the gilding and colouring below. Finely

Chalice from Little Farringdon, Oxon.

woven altar frontal and hangings are also exhibited, as well as a well-proportioned cross with its candlesticks. These are in oak, gilded. Mr. Harold S. Rogers is the architect.

A very large wooden crucifix is also exhibited. The cross, of oak, is an unusually large and elaborately designed one, based on a French cross at the Victoria and Albert Museum. The figure seems of some soft wood, apparently to be coloured or gilded, and the side figures are not in position. There is no

15th Century Processional Cross, from Burford Church.

Silver Cross.
By the ARTIFICERS' GUILD.

indication of the church to which it is going. Mr. Howard is the architect.

Miss Jessie Bayes also exhibits an altar cross with its companion candlesticks, in oak, gilded and coloured. The treatment of the decoration is rather weak, and would hardly tell at a short distance. The glass is well displayed and consists of very good wood, very much better than that shown in the General Exhibition. Naturally the individual artist gets away from the bad trade traditions which take so long dying! The influence of the classes at the Crafts Schools in London is at last telling.

Miss M. E. Aldrich Rope shows a very well drawn full-size cartoon for one of the lights for the east window of St. Chad's-far-Headingley. The whole scheme of the window is very well designed, and the detail is excellent. Mr. J. Harold Gibbons is the architect.

The three lights for the memorial window for the church of SS. Mary and John, Oxford, are also very well designed, and show a fine "clear" treatment of the glass, and the colours are very crisp and brilliant.

Mr. Edward Woon shows some extremely interesting trial panels for a portion of the large window for the Parish Church of Prescot, near Liverpool, as well as for the Church of St. Hilda's, Halifax. Mr. A. K. Nicholson is represented by a small panel of St. George, and Mr. William Aikman exhibits some very well-drawn and coloured lights for the east window of a small chapel and a large cartoon, full-size, of a memorial window for Minster Church, in the Isle of Thanet.

In all these examples of glass work the good texture and quality of the glass has been allowed to tell. It is in no way overloaded with colour. The great influence of Christopher Whall, as illustrated in the noble windows at Gloucester Cathedral, and his disciples, has been distinctly felt.

Coloured plaster panels are shown by Miss M. E. Rope. They are extremely pleasing, both being well-designed, modelled and coloured. The one used for the reredos of the Children's Chapel at the Church of St. Swithin's, Norwich, must look very well in its setting. Miss E. M. and D. A. Rope have also a group of fine separate figures for a Christmas Crib. All the figures are delightfully modelled and coloured. The grouping is excellent, and an unusual feature is the representing of the Shepherds as Youth. The fine models group extremely well.

Figure of St. George, in Oak.
By MR. H. J. YOUNGMAN.

A figure of St. George is placed centrally in the Hall. It is of old oak, and is treated with originality. The hiding of the body of the dragon in the block of the pedestal is a sane way of avoiding a great difficulty which the majority of sculptors fail over. The design and vigour of the figure are excellent, and the limitation of the material used is well recognised. The sculptor is Mr. Harold J. Youngman, and he is to be congratulated on the spirit of his work.

Two other important crafts need to be noticed—the very beautiful case of illuminated books and script produced by Mr. Graily Hewitt and his assistants, and the excellent woven fabrics of Mrs. Hazard. Mr. Graily Hewitt's principal exhibits are the three altar books—the Gospel book, the Epistle book, and the Service book; only the first is complete, and a very interesting volume it makes. The illuminated capitals are excellent, and the general script is admirable. These books were executed with the help of his assistants—M. Walker, F. Raymond and I. Hurstock.

The hand-weaving shown by Mrs. Hazard, of Harleston, Norfolk, is unusually fine. These examples of linen and flax and wool and flax and silk are very pleasing and satisfying, and are particularly beautiful for altar frontals and curtains. Drawings and photographs of architecture, fittings and memorials are also shown on screens in the hall.

It seems distressing that with such excellent work possible so much that is mean and poor should still be produced and given by unconscious donors to our fine cathedrals and churches; a very great deal of it is unworthy of them.

It should be possible to obtain the help of still a greater number of real craftsmen to augment this Exhibition. The opportunity is a great one, and must influence the clergy and laity. It is the only way to obtain an appreciation of beautiful things, and it is a pity full advantage is not taken of them by all the great craftsmen.

New Books.

Messrs. B. T. Batsford's list of autumn announcements includes: "Elements of Design and Form in Classic Architecture," by Mr. Arthur Stratton, and "The American Architecture Law Manual," by Mr. Clinton H. Blake, jun., author of "The Law of Architect, Owner, and Contractor," etc.

Memorial Window, SS. Mary and John, Oxford. By MISS M. E. ALDRICH ROPE.

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ILLUSTRATIONS.

Free Library, Basford, Nottingham.

Two schemes for this library were submitted by Messrs. Ernest R. Sutton & Son, F. & A.R.I.B.A. in a competition arranged by the Nottingham Corporation in 1915, and were placed respectively first and second by the assessor, Mr. J. Alfred Gotch. Owing to the war the work was postponed. The Corporation has now decided to proceed with the erection of the library, but on a different site from that first selected.

Supervision, economy and convenience in working have been the keynote in the preparation of the scheme. The attendant in the lending library has a full view of all the book-cases, and commands the entrance and other rooms open to the public. The facings will be of red brick in 2½ in. courses and stone dressings. The roof will be covered with Bangor slates.

Free Library, Bulwell, Nottingham.

This scheme was submitted by Messrs. Ernest R. Sutton & Son, F. & A.R.I.B.A., in the competition arranged by the Corporation at the same time as the Basford Library.

Neatham Manor.

This old Manor House was probably first held by a religious order. Some Gothic moulded stones have been excavated in the grounds and probably a chapel or tithe barn at one time adjoined. The two old fireplaces and chimneys, which are of an unusual size, are presumably part of the old original building; the present house probably being built round them in the late Elizabethan or early Jacobean time. For the past 100 years it has been occupied as a farm house, and at one time seems to have been divided into two, and occupied by different tenants. With the exception of part of the north front the whole building above the ground floor is framed together with oak beams, and covered outside with red tiles: the roof is similarly tiled. On the removal of the ceilings it was found that the ceiling and floor joists were of wrought oak, and these and the beams and timbers in the walls and partitions are now all exposed to view.

This property, when acquired a few years ago by Lieut.-Col. the Hon. Arthur Hamilton Russell, was in a very dilapidated state, and he entrusted the task of restoring and bringing it up to modern requirements to Mr. A. Y. Mayell, J.P., Lic.R.I.B.A., Holland Park-avenue, W.11. The work has now been completed at a cost of over £8,000, by the following contractors:—Messrs. Mills & Sons, Farnham, general contractors; Tuke & Bell, Ltd., sewage system; Benham & Sons, Ltd., heating; Mr. T. Hill, Farnham, electrical installation.

Neatham was before the Conquest held by the Confessor, and at the time of the Doomsday survey by the Conqueror. King Stephen gave it to Waverley Abbey in 1147.

Lord Wandsworth Orphanage.

These buildings are now practically completed, and consist of a hostel for girls, and a pair of cottages for boys on the left-hand side.

Both buildings are in purple and grey multi-coloured bricks, with dark sand-faced tile roofs, and ordinary wooden casement windows.

The cottages have been built by Messrs. Hyde & Smith, of Bramley, Surrey, and the hostel by Messrs. Crosby & Co., of Farnham, Surrey. Messrs. Waring, Withers & Chadwick, of 10A, Soho-square, London, W.1, carried out the electric lighting and bells to both buildings, and the heating, sanitation and drainage to the hostel was executed by Messrs. Dent & Hellyer, of London. The door and window furniture for both buildings was supplied by Messrs. T. Elsley, Ltd., of London.

Mr. E. Guy Dawber, F.S.A., 18, Maddox-street, London, W.1, is the architect.

Restoration of Neatham Manor, Alton. MR. A. Y. MAYELL, Lic.R.I.B.A., Architect.

Restoration of Neatham Manor. MR. A. Y. MAYELL, Lic.R.I.B.A., Architect.

Restoration of Neatham Manor. Mr. A. Y. Mayers, Lic.R.I.B.A., Architect.

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Architectural
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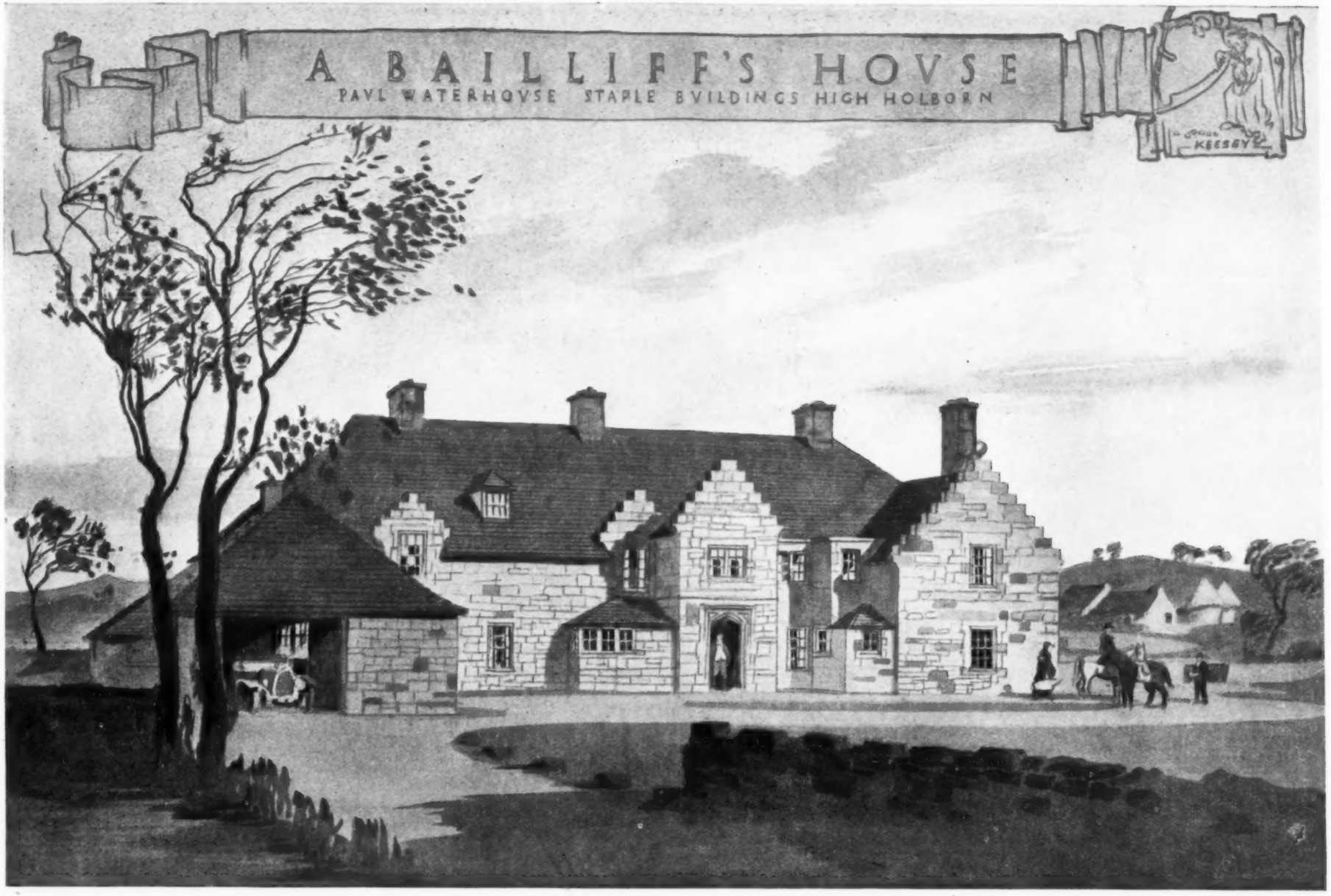

An Old House near St. Andrew's, Fife. Alterations by Mr. Paul Waterhouse, PP.R.I.B.A.

[This building is an old house altered to suit the purpose of a factor's residence.]

Architectural
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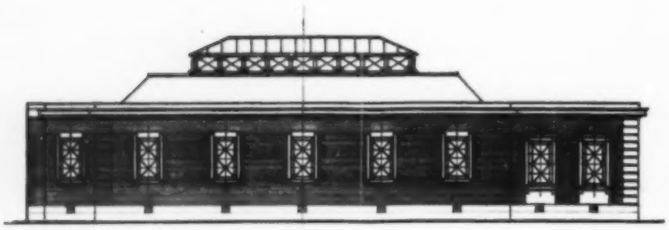

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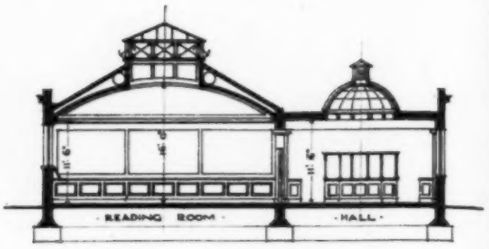

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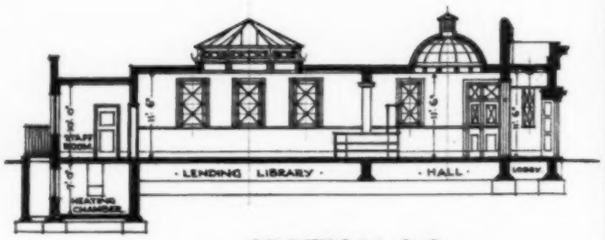

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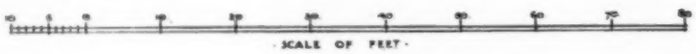
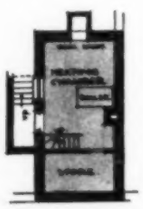
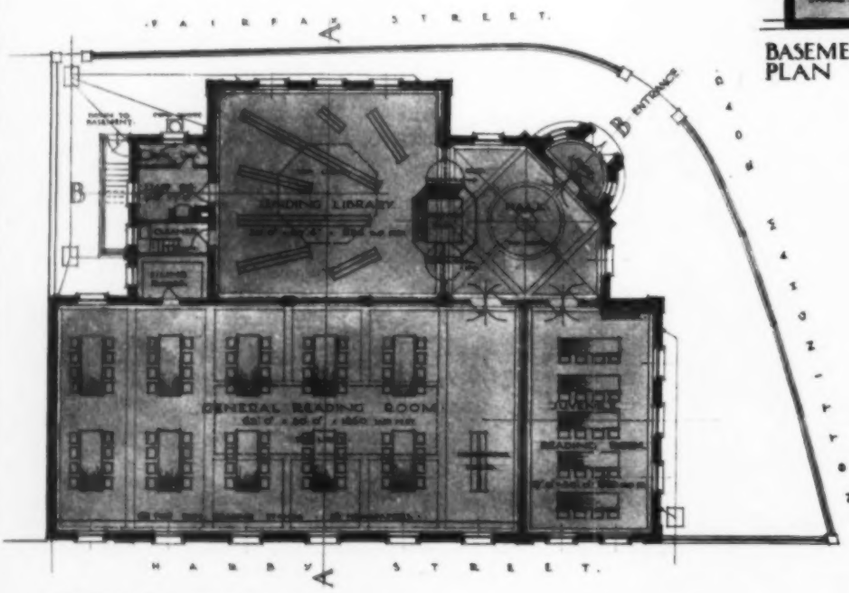
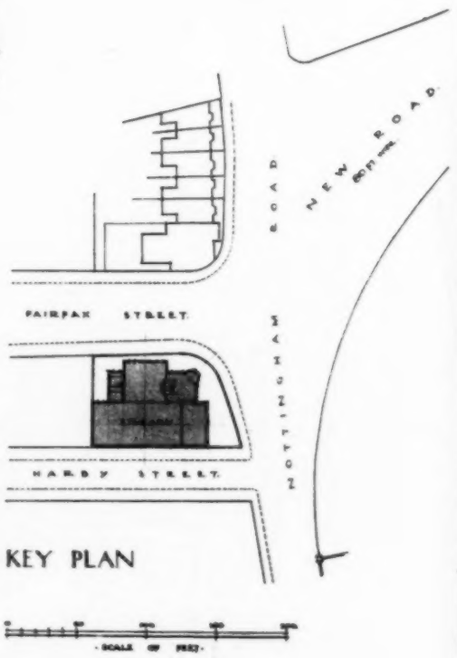




BASEMENT PLAN



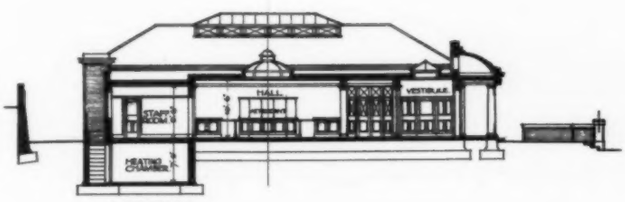
GROUND PLAN AND BLOCK PLAN (SHEWING DRAINAGE)



KEY PLAN

FREE LIBRARY, BASFORD, NOTTINGHAM. DESIGN PLACED SECOND.

MESSRS. ERNEST R. SUTTON & SON, F. & A.R.I.B.A., ARCHITECTS.



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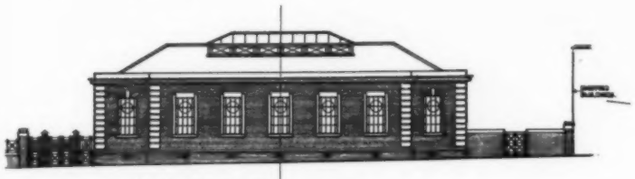

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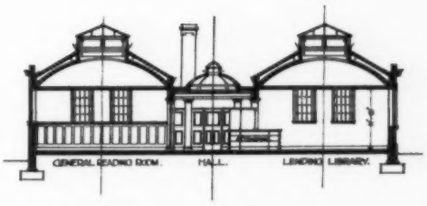

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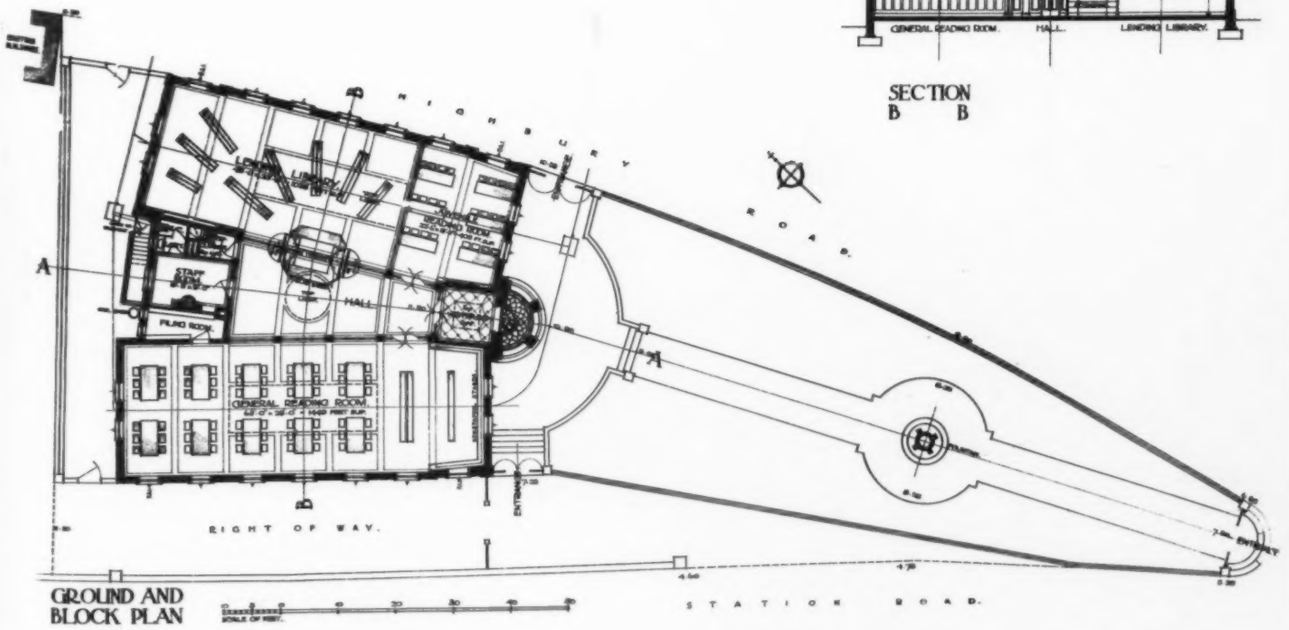

GROUND AND
BLOCK PLAN

DESIGN FOR FREE LIBRARY, BULWELL, NOTTINGHAM.

BY MESSRS. ERNEST R. SUTTON & SON, F. & A.R.I.B.A.

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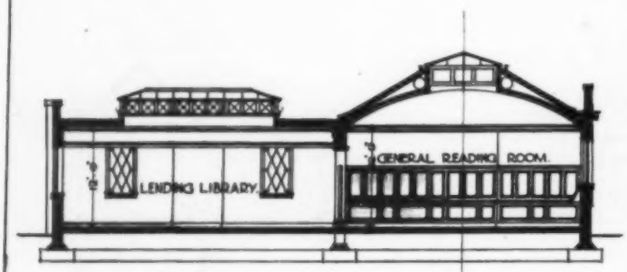

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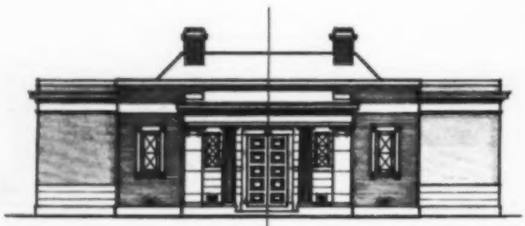

ELEVATION TO
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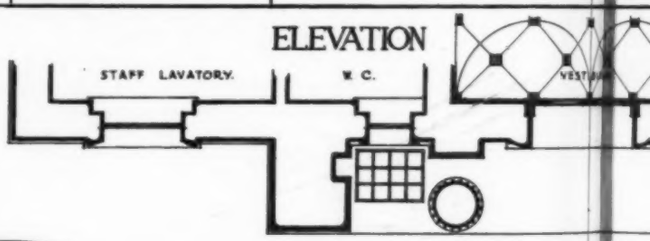

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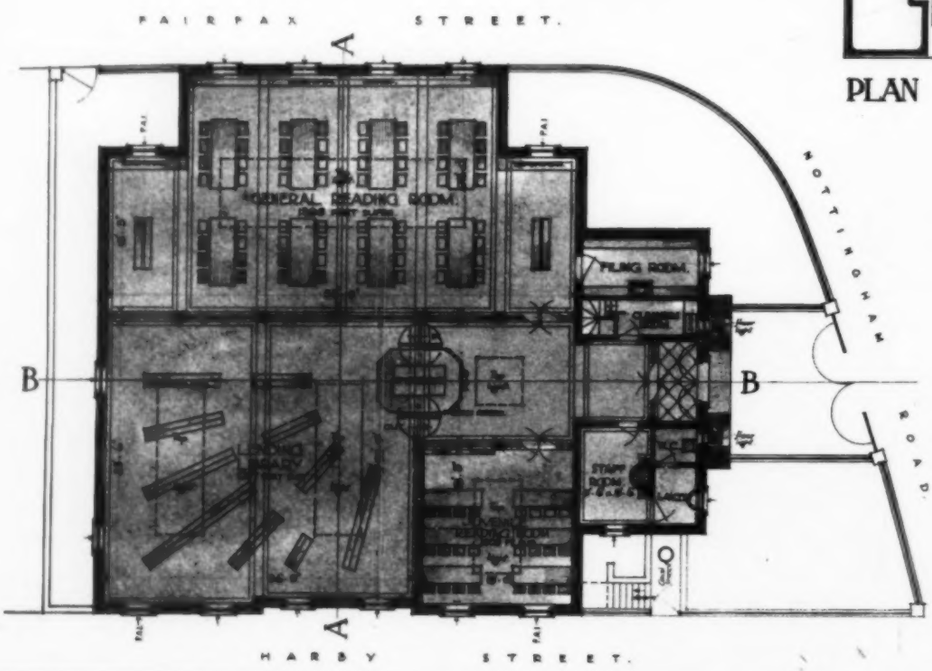

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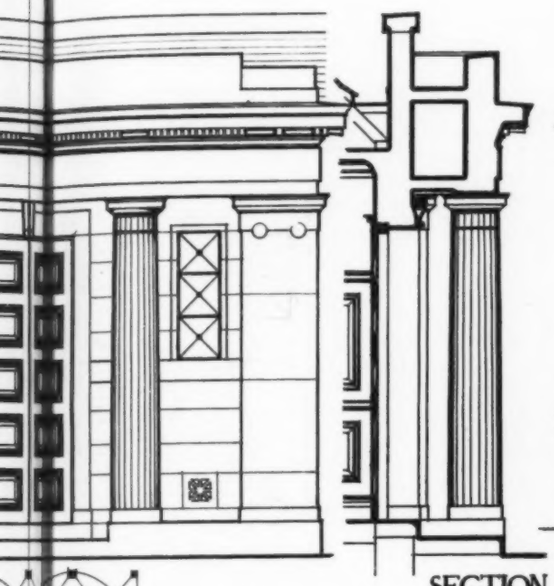

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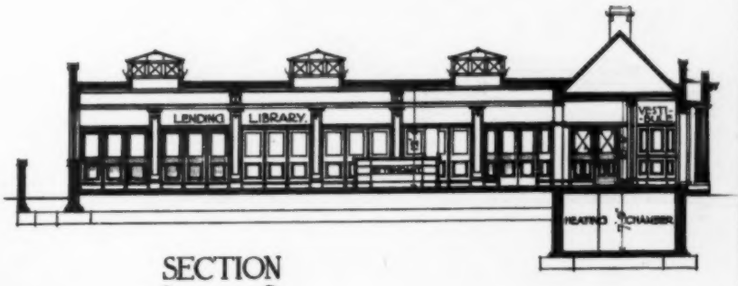

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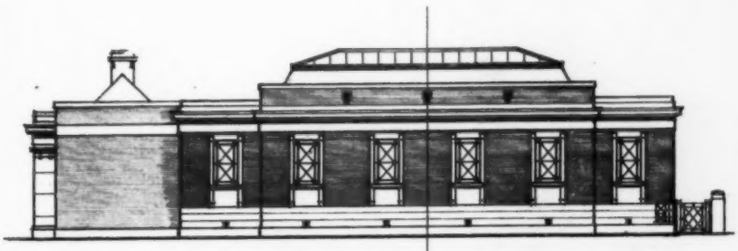

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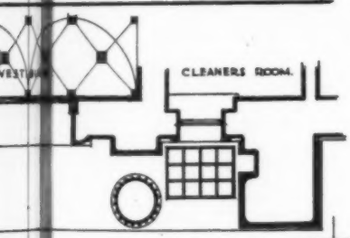

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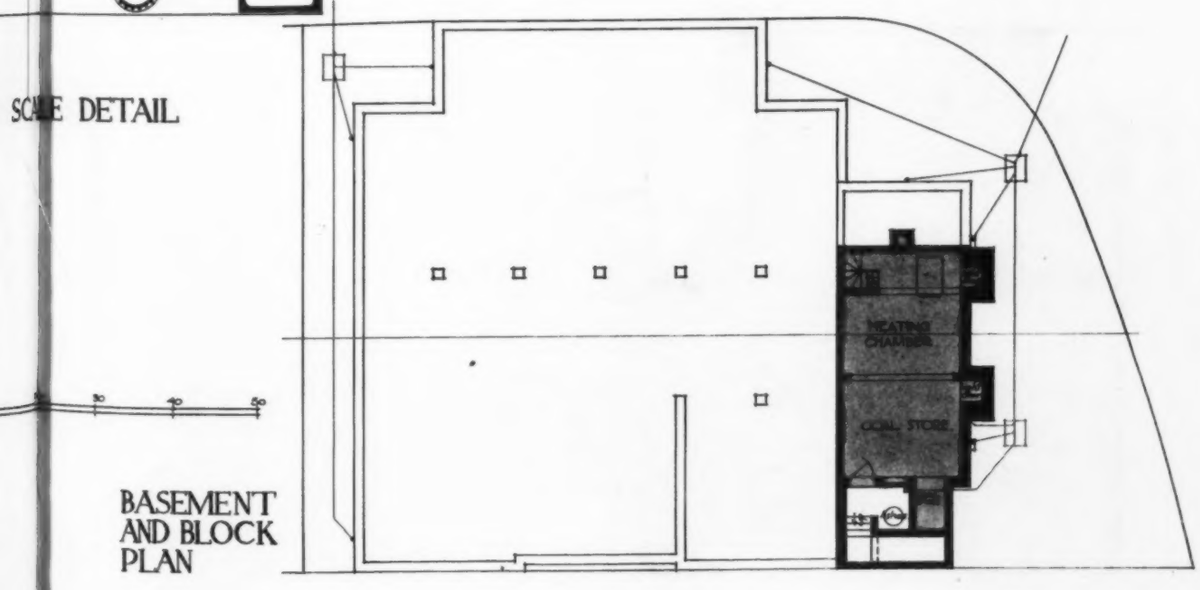

BASEMENT
AND BLOCK
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Architectural
Library

Mr. E. Guy Dawber, F.R.I.B.A., Architect.

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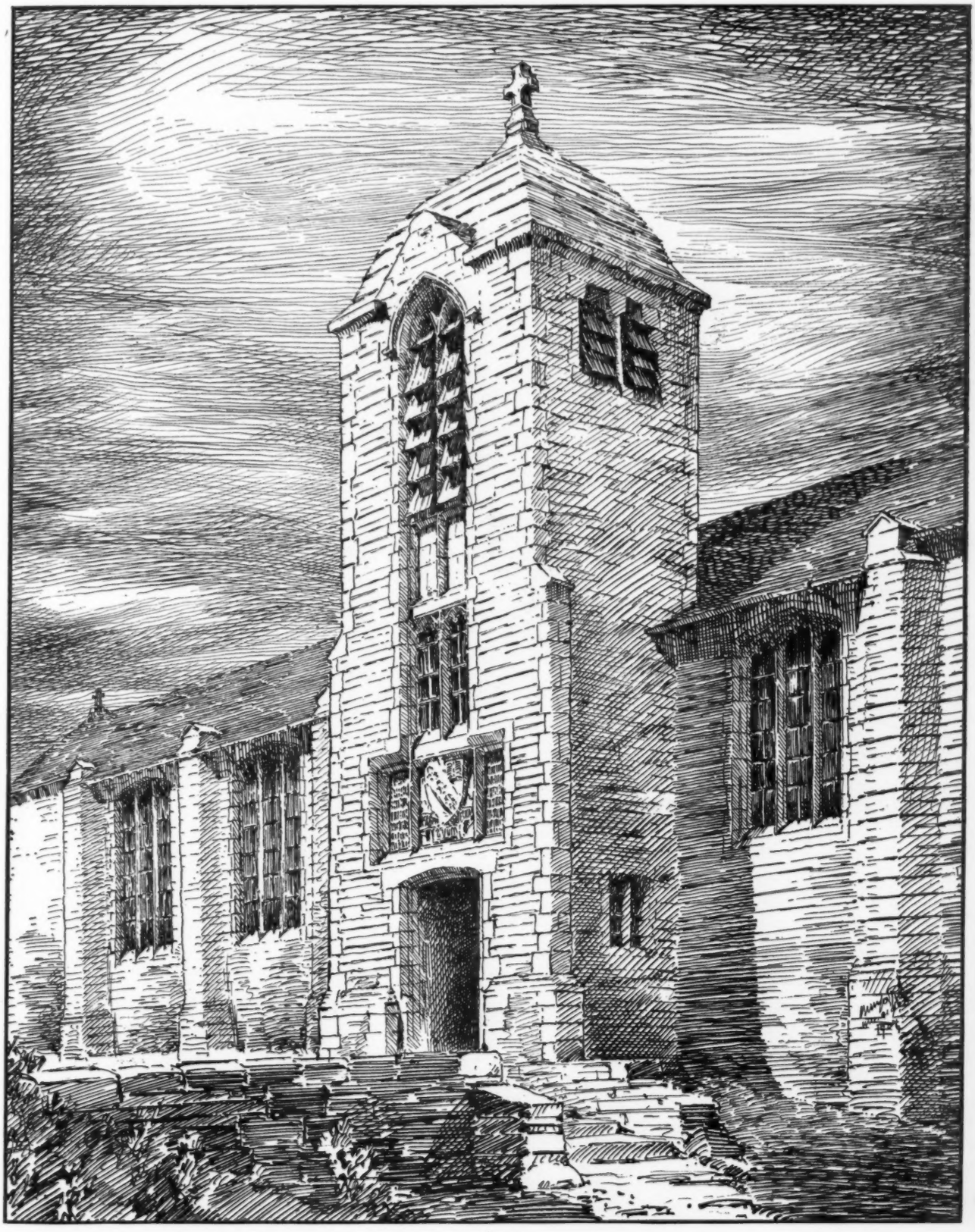
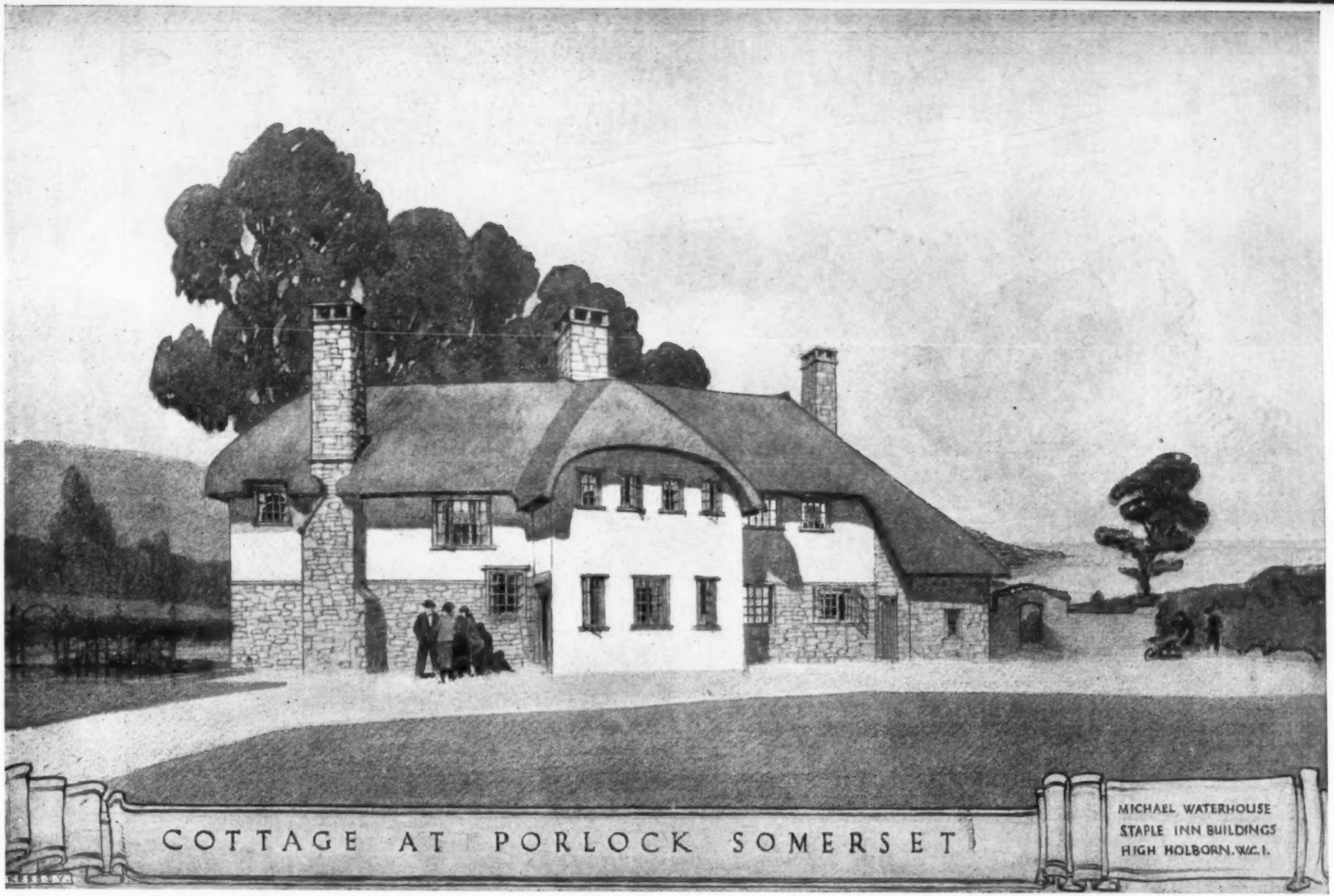


Memorial Chapel, Monkton Combe.

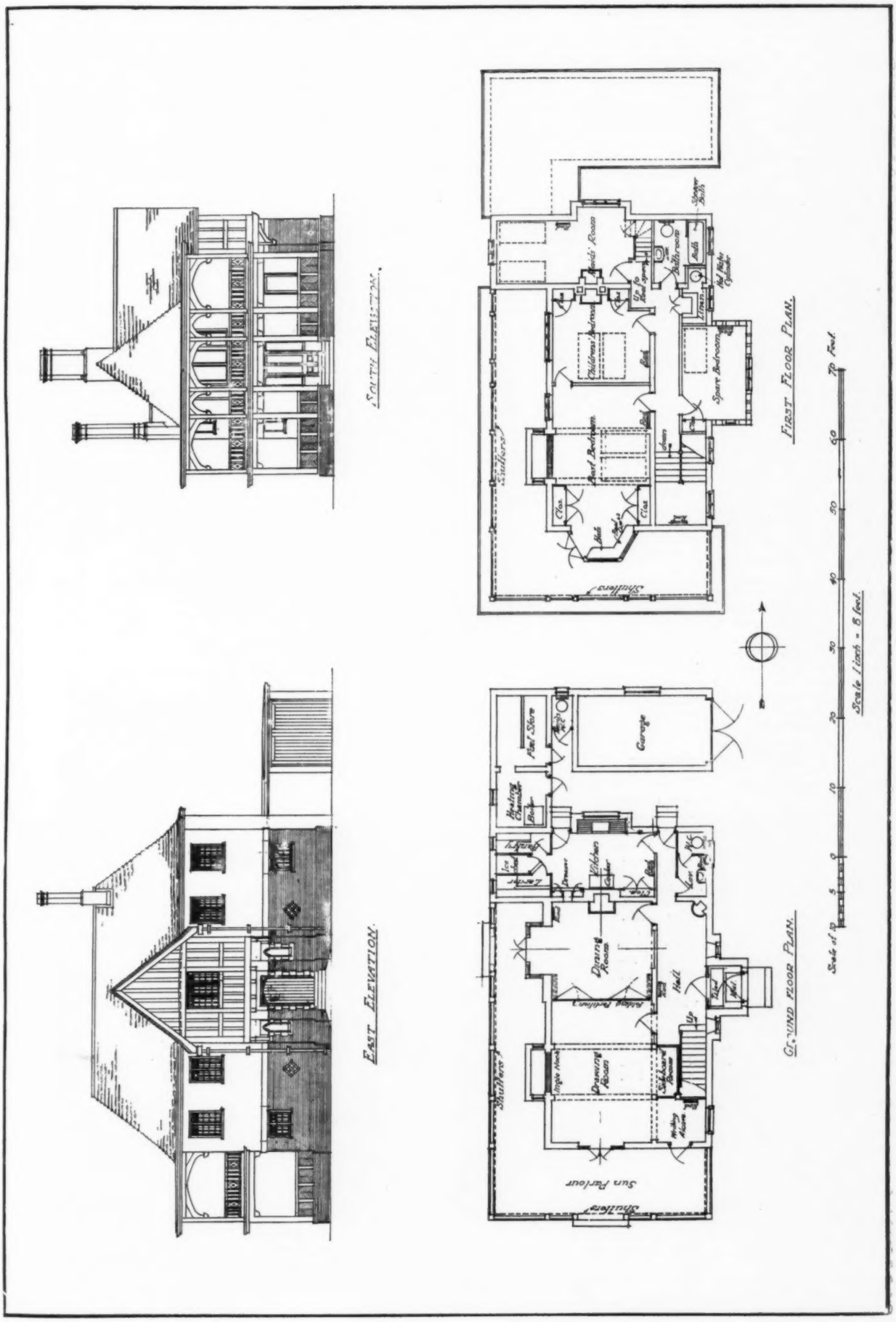
PROFESSOR BERESFORD PITE & MR. J. S. HODGES, F. and A.R.I.B.A., Architects.

[This sketch shows the entrance tower on the north side of the chapel, the whole of which forms the war memorial of the School. The building is of local stone, coursed rubble externally, and sawn ashlar blocks internally. The contractors are Messrs. Coles & Son, of Bath.]



Cottage at Porlock, Somerset. MR. MICHAEL WATERHOUSE, A.R.I.B.A., Architect.

[This cottage stands on the slope of a hill just above Porlock village, facing south and west. It is built of local Hawkcombe stone, with a thatched roof. The general contractors are Messrs. J. Cooksley & Son, of Porlock.]



Proposed House, Long Island, U.S.A. MESSRS. SMEE & HOUGHS, Architects. (See p. 521)

WESTMINSTER ABBEY RE-EXAMINED—VIII

By W. R. LETHABY.

FIRST AND SECOND WORKS OF HENRY III.

By the two works of the King I mean the building of the transepts, crossing, and the whole of the church to the east of these, including the Chapter House, in one effort; and then the extension towards the west in a second building period. Before the first work of the King was begun in 1245, a Lady Chapel had been built by the Abbots, and the foundation of this was laid in 1220 by the young King. The problems in connection with this chapel are well discussed by Mr. Westlake. I find it very difficult, however, to think that if, as is thought, this Lady Chapel occupied what is now the central area of the chapel of Henry VII, it could have been built in exactly this position before the work of 1245 was set out on the ground. The setting out of work was hardly ever accomplished accurately, and that the position, level, axis, and scale of plan of the old chapel should all have been perfectly suitable for incorporation in the new work seems to me next to impossible; and the junction in regard to heights must have been as difficult. The only material evidence for the exact situation of the chapel is a foundation which was found under the apsidal end of the main span of Henry VII's Chapel. On inquiring whether any memories were still held as to what was discovered, Mr. G. E. Wright (brother of the present Clerk of Works), tells me that he was present forty-eight years ago from last April, when the excavation for a grave was made. "In front of the Sheffield monument (in the N.E. chapel), when we took up the paving, we came on a stone wall nearly 3 ft. wide, 9 or 10 in. under it. They said it must have been the bottom of the wall of the early Lady Chapel. It was decided to try the other bay (the S.E. chapel), where we found the wall had been cleared away. I have no remembrance of bases or anything of that sort; the stones were roughly laid and rough axed, like the Norman work, and they came to the conclusion that the stones were of the Confessor's Church reused by Henry III. It showed that the old Lady Chapel had an octagon end, but there was not enough to give full width of the chapel." A sketch shows the wall between the two piers at the entry of the N.E. chapel. It would be easy to search this position again, but in the meantime it is not safe to assume that what was found was part of an apse of the old Lady Chapel. It might be a foundation wall of Henry VII's work, or part of a rebuilding by Henry III. A difficulty at once occurs as to the level, for the floor of Henry VII's Chapel is some 5 ft. above the level of Henry III's work and more still above the floor of the Confessor's Church. There is some evidence which suggests that the old Lady Chapel was rebuilt with the church, but until the foundation above described is re-examined and all possible evidence obtained, further argument is premature.

The great isolated Bell Tower, which stood on the north side of the nave seems to have been built before the work on the church was undertaken. The foundations were exposed when the new public buildings were recently erected, and I saw here a large number of piles which had covered a wide area. In the Virtue MSS. at the British Museum (23096) I have found the following note: "At Westminster, in the Sanctuary [the precincts], the Tower pulled down in 1750. In the foundation a stone found at the bottom, this date, thus, MCCXXIV. This stone building, called the Belfry, built before the present Abbey, refounded by King Henry III, but how much earlier unknown (I lately took the measures of it) was a castellated tower, square about 70 ft., and at one corner was great bells for the use of the Abbey Church."

It appears from the fabric rolls that a timber, lead-covered steeple was erected on the masonry tower while the first work of the church was in progress. An entry on the rolls for the fourth year of the works (1249) records a payment to *Magro Alex. ad pilos Be'fridi*—that is to Master Alexander, the carpenter, working on the spire of the Belfry. William and Roger, plumbers, were engaged on it in 1253.*

TWO WORKS.—It used to be thought that the whole work of Henry III on the church extended only so far as the first bay to the west of the crossing, but Micklethwaite demonstrated that the building dedicated in 1269 included the Choir, which occupies a large part of the western limb of the church. There is evidence, moreover, to suggest that it had been intended to consecrate the eastern part of the church before the building of the Choir westwards was undertaken. On November 7, 1254, Henry III issued a mandate that funds should be provided "out of the money of the treasury or elsewhere to recall the workmen of the church of Westminster who have left as the King is informed" [a strike!] "so that the work may proceed, as the church must be consecrated at the latest on the Translation of St. Edward, the quinzaine of Michaelmas" (Patent Rolls).

This proposed date would be October 13, 1255, but, so far as we know, the King's intention was not accomplished. Possibly the difficulties were too great, or the King determined in the meantime to take up the extension and consecrate the whole together. In any case, it appears that the first work was so forward at the end of 1254 that it seemed possible that it should be dedicated in 1255.

It has been observed that the fabric roll of 1253 shows that a special effort was made in that year. At one time no less than 78 white-stone cutters were employed, and again 49 marblers, and parts were also being done by task or special agreement. Much finishing work was in hand. Lozenges for paving are mentioned. 32 carpenters were employed at one time and 14 glaziers; plumbers and painters were also engaged. Ade, the whitener, and his mate were working steadily. The King was away in France from August, 1253, to January, 1255, and he doubtless intended that the glorious new fabric should be ready for consecration on the Saint's day following his return. It may not be doubted that practically the whole of the first work including the transepts and Chapter House belongs to the period 1245–55 and that every detail must have been settled by 1250. It is important to recognise that everything most characteristic of Westminster was settled in the first half of the thirteenth century.

It was a great piece of work, but the energy with which it was done was not exceptional. Viollet-le-Duc again and again calls attention to

*In modern times it became confused with the Westminster Sanctuary or precinct in which it stood. In the transition time it was still known for what it was. In the Abbey records, a lease of tenements in the south part of the Great Belfry was entered in 1574. In 1578 the Sanctuary gate leading to King-street is mentioned, that is, the gateway to the Close. I may mention here that I find it ordered that "the Convent Kitchen, the Misericorde and St. Catherine's Chapel be taken down by the advice of the surveyor," in 1570. In 1575, tenements "where a chapel, late called St. Ermylles hill did stand," are mentioned, and in 1591 it was ordered "that the old Dorter and great room before be converted, one into a library, the other into a school."

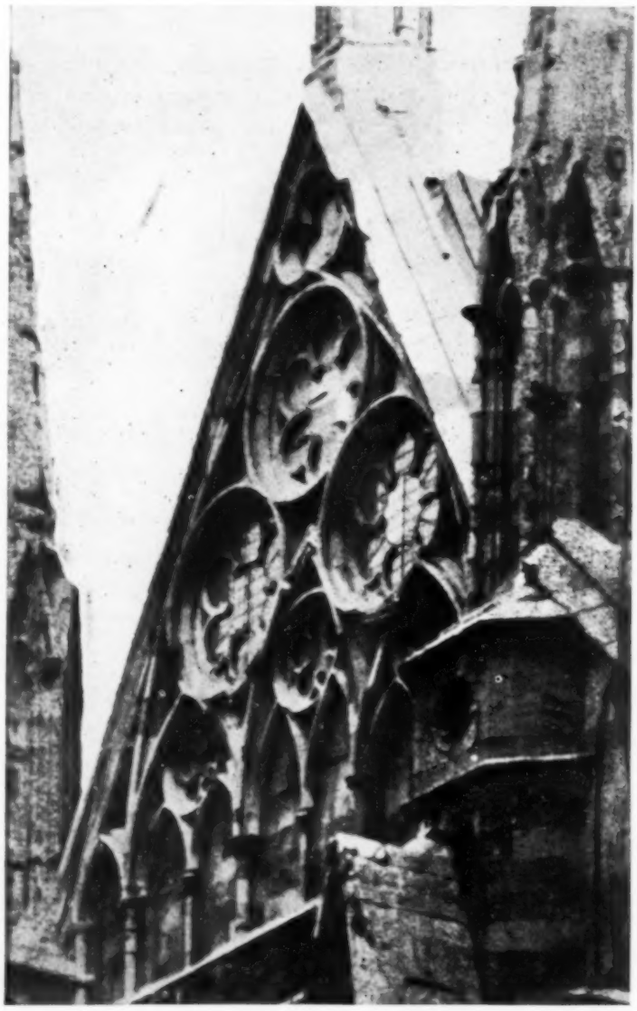


FIG. 1.—GABLE BEFORE DESTRUCTION.

FIG. 2.—SOUTH TRANSEPT IN 1860.

the rapidity with which immense works were pressed forward in France. The character of Henry III, the records, and details of the structure agree in evidence that Westminster fully conformed to type in this respect. Yet we may wonder at the co-ordinating ability which could do so much in so little time. Even the unremembered foundation required vast labour. The outer walls stand on a great mass of concreted rubble wide enough for the projection of the buttresses, it is some 10 ft. deep, 20 ft. wide at the top, and 30 ft. below.

After the practical completion of the first work there was, the evidence suggests, a relaxation of effort for several years during which other and minor works were undertaken. On the marriage of Prince Edward in 1254, the King had undertaken to provide an establishment of £10,000 a year, and money was hard to get. In 1255–6 the King ordered that the roof of the Lady Chapel should be taken down and that it should be vaulted in stone—an order which possibly implies complete rebuilding. The sacristy was roofed about the same time and works like paving in the church were done. The times became increasingly difficult politically and very little building can have been done in what Sir James Ramsay calls "the critical epoch 1258–1261, a time of confusion hard to follow." In 1258 the King issued an order that the monks should throw down the walls of the old church as far as the vestry by the King's seat, "so that it may be rebuilt as the work begun requires." The order must show an intention to resume the work, but this was "the memorable year" of the Oxford Parliament when, as Matthew Paris says, "Were never known so many folk to die of hunger."

In 1260–1 John of Gloucester and Alexander, the King's mason and carpenter of that date, were granted double wages when travelling to make provision for the church. This must mean gathering craftsmen and materials for the work. In this same year the mason died and it may be doubted if any of the second work above ground was done by him. This work can probably be assigned to the years 1260–1269. It is not more than a quarter as much as the first work, but the period includes that of the Barons' war. Money was still a difficulty and in 1267 the King had to pledge the golden images of the shrine for his immediate necessities.

There is a special freshness in the details of the new work, a subtle difference of spirit, and as will be shown below there are reasons which suggest that this new spirit was brought in by a master mason from the north.

MASONS.

I discussed, in September, 1923, what is known about Master Henry (probably the same as Master Henry de Reyns), the King's master mason at Westminster from the commencement of the work in 1245. While admitting to the fullest degree study of French sources, all at Westminster seems to me so thoroughly rethought and re-handled that I have no doubt that the foreign conceptions passed through the mind of an English master. On all the evidence known to me it appears most likely that Henry de Reyns had his name from Raines in Essex. The name Raynes is still not uncommon, and it is in a bookseller's catalogue before me. From what has been said of the progress of the works it appears that Master Henry had built the first work by 1254–5. It may have been his death about this time which put off its actual completion and consecration. I have now little doubt that a portrait head in the north transept is that of Master Henry.

(Master Radulphus de Dartford *cementarius* has also been mentioned, and I have found a note of another reference to him. He signed the document 17498 at the Abbey together with Odo the King's goldsmith, an important person of the earlier part of the King's reign. It really does look as if he might have been the master for the Lady Chapel begun in 1220, as suggested by Mr. Westlake.)

Master John of Gloucester succeeded Master Henry in the direction of the works about 1254–5.

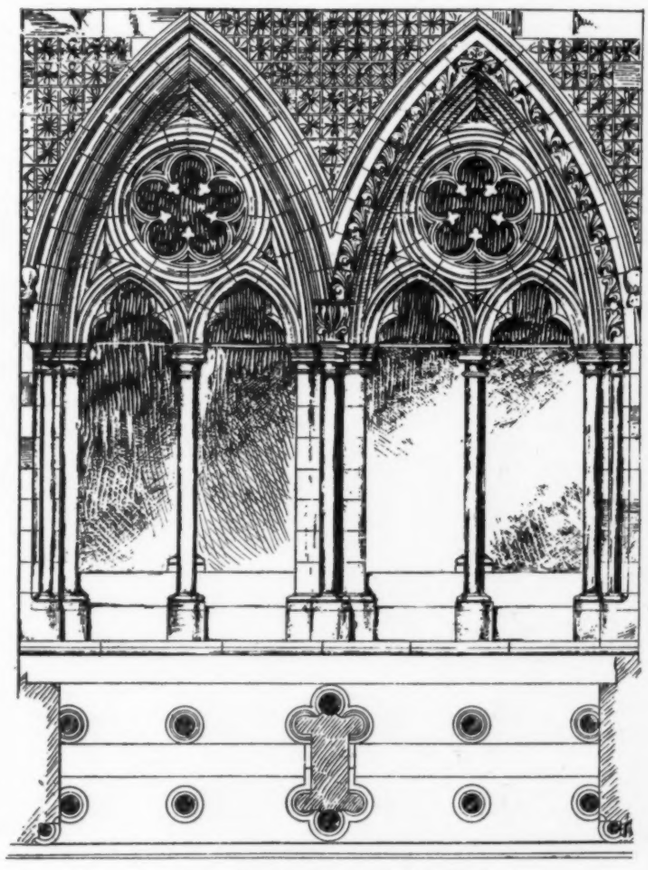


FIG. 3.—TRIFORIUM (R. J. JOHNSON).

In 1255 he was exempted from serving on juries, and the Sheriff of Oxford was to permit this exemption. He was also granted "for his service to the King at Gloucester, Woodstock, Westminster, and elsewhere two robes with furs of good squirrels yearly for life from the Wardrobe, such as Knights of the household receive." In 1256 Master John, the King's mason, was granted the serjeantry Blechesdone. In 1257 he and Alexander the carpenter were appointed chief masters of all works of castles, &c., this side of Trent.

"Master John, the King's mason (*cementarius*), is named in a grant c. 1250 in the possession of the Corporation of Gloucester as holding land" (*Notes and Queries*, II, S. X). I doubt if Master John did much more than carry on at Westminster in an interim period. Records of other works exist. 1258, Dec. 1: The King commanded Master John, the King's mason, to cause to be repaired the chimney of the King's chambers in the Priory of Merton, and the Gardrobe and the King's Chancellor's chamber, and that the cost be charged to the King and allotted to the outgoings of the works at Westminster (Close Rolls, 42 Hen. III, Sharpe's Calendar).

The great mason died in 1260–1, and, as Mr. Westlake has shown, he died poor.

From the Calendar of Inquisitions (Misc. I, 298: Jan. 3, 50 H. III) it appears that "at the time of his death he was bound to the King in the sum of 80 marks by reason of arrears in the King's works. The debt was compounded for a yearly payment of five marks, but on inquisition being taken it was found that the income from his possessions was less than two marks a year." There was evidently trouble, and it looks as if the poor man was worried to death.

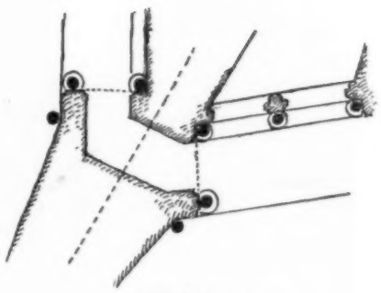
Master John was followed by Master Robert of Beverley, who brought Henry III's work to a conclusion. On the evidence of the fabric itself, which will be described later, I have come to think that all that is distinctive in the character of the second work must be ascribed to Master Robert. Although some of the changes in the Western extension of the Choir may have been intended from the first there are many alterations of detail. French influence is much less apparent, and there are no new direct borrowings in this part. This work is most sweet and beautiful. Fig. 5 shows an intentional variation in the piers east and west of the crossing, both of the first work.

In 1264 Master Robert is named as one of the wardens at Westminster receiving £100 for the works. The second work was thus proceeding at this time. The following year "Master Robert de Beverley, mason of the King's works of Westminster," was granted two robes a year from the Wardrobe, "so long as he be with the King in the said office in the same manner as Master John of Gloucester, sometime mason of the works, used to receive." In this year and the next he and Alexander the carpenter are called keepers of the works (Patent Rolls). His name appears in 1272 as witnessing a charter, together with Edmund the Goldsmith and William le Verrer, who must have been glazing the church. Robert of Beverley was still the King's master of works in 1284, he thus occupied the position for about 25 years. Probably work of his could be identified at the Tower. He was a very great mason.

The best approximation to an English architect's drawing known to me is one of tabernacle work surrounding a figure of Becket in the "Black Book of the Exchequer" (Fig. 4). It is so like the work of Villars de Honnecourt that it must be very similar to the original drawings for the Abbey. In the sixteenth century a house outside the north side of the nave was still called "Mason's Lodge."

FIG. 5.—PLANS OF PIERS.

ORIGINS.—When I considered the question of sources of design before, I concluded that Reims Cathedral was the chief prototype. Now I would substitute Amiens. The principal borrowings from Reims were the apsidal chapels with their pair light windows and wall passage. The *planning* of the apse with the surrounding chapels was, however, founded on a study of more recent developments at Amiens. The setting out of the apse at Westminster is well analysed in "Gleanings." The centre of the radiating system is half a bay to the east of the last normal bay (Fig. 6). This gives a slight drawing in of the bay next the normal one, making thus an easy transition to the fully canted bays of the apse. The system of setting-out the *apse* (not considering the chapels), is similar to that followed at Beauvais Cathedral (V.-le-Duc, Vol. 7, p. 551), and also I believe at Amiens. Viollet-le-Duc proposed another system for Amiens, and this is accepted in "Gleanings"; but the plan given in Durand's great monograph plainly shows the gradual drawing in of the lines at the beginning of the apse. At Hailes Abbey is an apse which was suggested by Westminster, but its plan is half a regular decagon. At Westminster the forms and slender proportions of the interior piers, especially those at the crossing, appear to be adapted from those at Amiens (Fig. 5); and there also a low lantern tower seems to have existed, such as was projected at the Abbey.



A. B. ENLARGED.

The "upright" unit bay of the interior was also adapted from the same Cathedral, as also were many details, as has been pointed out in regard to the Chapter House and the north transept with its portals.

Returning to this last, I would call attention to the manner in which at Amiens the triforium passage with its arcade passes across the end of the nave at the same level as an outer gallery, thus. . . .

——— The same arrangement is found . . . .

at the north front, Westminster. The wall arcade in the "blank porch" (like that in the Chapter House), is similar to an arcade just within the western portals at Amiens. What has been shown of the detailed resemblances between the sculptures of Amiens and those of the Chapter House will reinforce what was said in the examination of the sculptures of the portals. In the carvings of the west aisle of the north transept of the Abbey are deaf adders stopping their ears with their tails; their parent is at Amiens. Minor carvings, like the wall diaper and rose decoration, were derived from Amiens. The dependence of Westminster on Amiens is so certain that it becomes evidence to turn back on the source. At Amiens, the west front must have been well advanced, some bays of the interior completed and the chevet out of the ground by 1244. The remarkable rose window of Westminster set within a square may have been taken from one not now known, but *designed* for a transept at Amiens. The western rose at Amiens is of an earlier type, but there are blank trefoils around it filling out the square in which it was set (derived from Notre Dame), which might well have been the original suggestion for squaring the whole window as at Westminster. Our master Henry, the mason, would have had some interesting conferences with the master at Amiens, who doubtless explained how he "would do it" by sketches.

There are some striking correspondences between Westminster and the Ste. Chapelle, at Paris, which, however, does not seem to have been begun before our church. Enlart, Durand, and Antheme St. Paul give the time of building as 1245–8. The chief resemblance between the two works is in the sculptured censing angels in the spandrels of arcades; the triangular windows of the triforium at Westminster, and the four light windows of the Chapter House resemble windows at the Ste. Chapelle, but there are windows of the same kind at Amiens. The Ste. Chapelle itself resembles the east end of Amiens. Viollet-le-Duc says: "The apsidal chapels at Amiens have the closest resemblance to the Ste. Chapelle, even to the same moulding profiles."

(This part will be concluded in our next issue)

FIG. 4.—THIRTEENTH-CENTURY DRAWING.

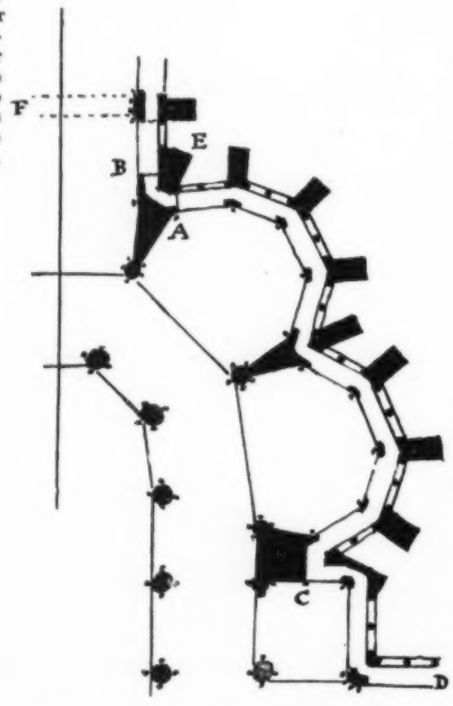


FIG. 6.—PLAN OF WALL PASSAGE.

THAMES VALLEY REGIONAL SURVEY

THE necessity is now widely recognised for a complete and thorough survey of a region before commencing the actual work of regional planning, and Messrs. Adams & Thompson, in their preliminary report, have wisely summarised the existing facts and statistics relating to the Thames Valley, leaving for later consideration their proposals for dealing with the region and its further development.

Middlesex and the Thames Valley are an integral part of London, and it is obvious that a regional survey of any part of the Greater London area must also have regard to the probable needs of London as a whole. It is unfortunate that Kingston and Hampton have not seen their way to join with the ten local authorities included in the region, and it is obvious that the omission of these two authorities, and especially of the borough of Kingston, may seriously affect the usefulness of the work of the Regional Committee.

After dealing with the historical development of this portion of the Thames Valley and its natural beauty and characteristics, in which interesting particulars are given as to the origin and growth of the numerous Royal parks in the region, the gradual growth of the region is traced as a place of residence and recreation, especially for the middle classes. The widespread deposit of river gravel overlying the London clay provides an excellent subsoil, and has had much to do with the general healthiness of the Thames Valley as a place of residence; but, as the authors point out, there are many places where the gravel has been, or is being excavated, to the general deterioration of the immediate neighbourhood. Very unsightly gravel excavation works come in for very proper condemnation, and it is all-important that the local authorities having the guardianship of the Thames-side should be alive to this very real danger to the amenities of their district.

The riverside towpath between Hampton Wick and Hampton Court is at present very badly neglected—neither Thames Conservancy nor local authority accept responsibility—and here, above all places, the opportunity exists for one of the finest riverside drives in the county. By the simple expedient of removing the fence to the adjoining Home Park, some miles of river frontage could be thrown open to the park and a public pleasure ground secured with little or no expense to the nation. This is not touched upon in the present report, and no mention is made of the need for further river bridges across the Thames. At Chiswick, at Richmond, and at Teddington, new road bridges are badly wanted, and it is to be regretted that this preliminary report does not at least hint as to the necessity for these. Useful statistics as to the distribution of population and the housing conditions in the region are given, and it is interesting to learn, on the authority of Mr. B. S. Gott, Secretary to the Middlesex Education Committee, that the gross cost of educating children in average attendance at the schools in the county is £13 2s. per head, of which, generally speaking, 50 per cent. is defrayed by the Government Grant, leaving a net cost of £6 9s. per child to be met out of local rates. This means that a house rented at £30 per annum and producing, say, £15 per annum in rates, even if all the rates went towards education, would only yield sufficient revenue for the education of two children per house. All other local expenses have to be met out of the rates on property of a higher rental value. The continued growth of small house property is thus likely to be a source of impoverishment to a district rather than the reverse, and a serious question for the rating authorities will arise in the future.

The shopping centres of this portion of the Thames Valley are principally Richmond, with 2 shops, and Kingston with 2.3 shops per 100 of the population. Approximately 30 per cent. of the working population of the whole region are employed in London and an average of only 42 per cent. are employed locally.

The Survey of the Industries shows that at present the Thames Valley District is comparatively free from factories, although how long this will continue is difficult to say. The riverside, where not already occupied by towing-path or dwelling-houses and gardens, does not afford many sites in close touch with rail communication, but it is rather remarkable that even in such districts as Chiswick and Barnes the distance from railways and docks has so far prevented the springing-up of any considerable number of factories.

On the subject of communications by road and rail, it is obviously difficult to deal with a small sector of the London area without reference to the rest, but the report gives in diagram form an interesting analysis of the relative volume of traffic on the principal roads. Railway time zones in an area such as this would not at first sight appear to yield much information, but when it is realised that it takes upwards of an hour to reach some districts not much more than 12 miles from London, it will be agreed that there is considerable room for improvement. The large open spaces and parks of the Thames Valley have long made this fortunate part one of the playgrounds of Greater London, and we hope that it will be many years before this character is changed.

ENGLISH PRIMITIVES

THIS name appears so to have established itself as the designation of a period of work which is often anything but primitive in any right understanding of the nature of art, that we have to accept it. We may instance, however, the case of the mural paintings at Eton, which are in the grace of the figures, the treatment of draperies, and the general accomplishment of the work, far from being so. In an account published by Mr. Humphrey Milford of his lecture at the British Academy on Mediæval English mural painting, Dr. Tancred Boronius deals with a subject of great interest, which has not had the attention bestowed on it that the importance of the subject claims. The writer affords us some occasional glimpses into the history of some of the paintings actually preserved to us, and tells us how a wall painting in St. Anselm's Chapel, Canterbury Cathedral, executed in the twelfth century, not long after its completion, had a wall built in front of it, thus remaining invisible for seven hundred years. "It was in this fashion," so he tells us, "protected against a fire which is known to have broken out in 1174, and when re-discovered some thirty years ago, emerged in a remarkably intact condition with the colours very fresh and vivid." The Byzantine influence is clearly discernible in this painting, which is a good example of that assimilation to which the twelfth-century English artist was directed.

The account of the evolution of subject matter, which took a new direction and which extended beyond more purely doctrinal representation in the fourteenth century, is to be regarded as an early impulse towards more democratic expression which the arts received at this time, through the influence of William Langland. There is actually an instance (at Broughton, Bucks) of Christ as Piers Plowman, appearing on horseback as a pendant to the figure of St. George. Geographically, so we are told, paintings of Christ as Piers Plowman cover an extensive area. Dr. Boronius gives an illuminating account of the artistic relations between England and Scandinavia in the thirteenth century. In 1248, Mathew Paris, monk of St. Albans, distinguished both in literature and art, was sent on visits to the Abbots and Convents of the Benedictine Order in Norway; and there is an oak panel painting, a wing of a retable in the church of Faaberg, which bears near resemblance to certain illuminations of the school of St. Albans. One among them may with some probability be assigned to Mathew Paris himself. As the writer states, "What would be more natural than to connect this panel with Mathew Paris's visit to Norway?" In any case, the coincidence is not without interest.

There is much else in the lecture which throws light on the history of English mediæval painting which has not received much systematic inquiry so far. Such fragments as have come down to us are in a very perished state or have suffered from restoration and defacement, but distributed throughout the country our churches still reveal the record of an art much practised in the England of that time. Much of it bears traces of merely local origin and is of rude and primitive character; but seldom without evidence of a certain power of design and dignity in the forms portrayed. Very free from over nicety or conscious theory these mural decorations are executed in a very direct way, seldom with much preparation of surface beforehand. In a good many instances, as in the paintings in the Chapter House of Westminster, a gesso-plaster ground seems to have been laid over the stone, probably the best possible surface for painting, and for security that could be invented.

We are not inclined to over-estimate the importance to ourselves of this ancient work which has passed with its time, and has not very much with which to address us now. We dwell too insistently on the past when we allow it to obscure our judgment in regard to present work. It is so much easier to be eloquent about painting which comes down to us with the halo that time sets round the twilight of the past. We may not live in this and it behoves us to greet with equal tolerance and understanding what our own time projects. Encouragement such as this is much more difficult, appreciation more rare because it asks so much more from us. The connoisseur of to-day who prides himself on buying nothing but old masters, detaches himself from the appreciation of what his own time holds for him, and we need to discountenance the assumptions of culture that often go along with it.

Dr. Boronius endorses a plea which has recently been made that a Corpus be formed of reproductions after the existing mediæval wall paintings scattered all over England. Such a publication would be of much value, as the excellent copies by Mr. E. W. Tristram go to prove; but we should, in such a case, beware of a provincial sort of patriotism usurping the place of fact as in the case of the attribution of the Eton wall paintings, manifestly of Flemish origin, to William Baker, an Englishman.

PROPOSED HOUSE AT LONG ISLAND, NEW YORK

THE plans shown by the drawings on p. 517 are the first which have been prepared, and are still under consideration. The idea is for a moderate size house of Tudor character, planned in accordance with American custom for easy working. the sun parlour, with balcony over, being the special feature of the scheme. The chimneys would be of red brick with dark headers, and all walls finished in white cement. Electric radiators to be used in the drawing and dining-rooms, or gas fires if desired, but in either fireplace, if preferred, coal can be used. The passage to fuel store, &c., would be covered over.

A small guest's bedroom is built out over the hall below. Adjoining this is a linen room with hot-water cylinder, and bathroom with fitted lavatory basin, and w.c., the bath to have shower attachment with plate glass enclosure, and the room to be lined with Vitrolite in black and white. A lavatory basin would be fitted to each bedroom. Messrs. Smee & Houchin, of 82–85, Fleet-street, E.C., are the architects.

Old Westminster.

A lecture on "Old Westminster" will be delivered by Mr. Herbert A. Cox on October 6, in the Large Hall of the Northern Polytechnic Institute. The lecture will commence at 7 p.m., and will be illustrated by lantern slides and a model to scale. Members of the public will be admitted on presentation of visiting card.

THE PENTALPHA METHOD OF DESCRIBING THE GREEK IONIC VOLUTE

By JOHN HALL, F.R.I.B.A.

THE accompanying diagrams are taken from a French book—no author's name—on Grecian Architecture of 1808 date, and the following is a description of the method of their construction.

Upon an axis A B C D describe the eye of the Volute equal to 3 parts and 1-3rd of a module. Through the centre of the circle draw an extended diagonal at an angle of 45 degrees E.F. With a radius of half the diameter of the eye describe from A as centre an arc at G; repeat this operation from C as centre, thus completing the arcs at G.

The method of constructing the pentagon, though of vital importance, is unfortunately not shown in the book of reference, yet after several attempts, however, I eventually discovered a solution of the problem which is as follows:—

From the axis G draw with a set-square a line 60 degrees to the vertical plane; produce this line until it cuts the lower part of the circle at H. From H, with a set-square, draw a line 45 degrees to the vertical plane, produced until it cuts the circle at I. Thus H I will represent one side of the pentagon. To complete the pentagon mark off upon the periphery of the circle the remaining distances, each of which must be equal to the side of the pentagon already evolved.

The next operation is to fill in the two figures, each having five points, the larger of which is shown in solid black line. With a set-square draw a line at 45 degrees to the horizontal plane, joining J L. From J draw a line joining it with H. Join I to L, then from K draw lines joining it to H and I respectively, thus completing the figure known as a five-pointed star. The five-pointed figure, shown in dotted line, is formed by first finding the centres of each side of the pentagon; then, with a set-square at 45 degrees to the horizon, join M and P. Join M to O and O to Q. Then from N join to P and Q respectively, thus completing the smaller five-pointed star.

Although the method of finding the various centres from which the volute is described is not explained in the book of reference, yet it will be seen in the accompanying drawing that they are arranged clockwise, and numbered 1, 2, 3, 4, &c., as on the original diagram. The line 3, 5, 8, drawn at 45 degrees to the horizon, is found by striking arcs from centre 10 as radius, while the centre 6 is found by striking stilted curves from centres 9 and * respectively. Before drawing the volute it will first be necessary to construct quadrants forming sections upon which the spiral is constructed. Thus by producing line I K we have the first section; by producing line K H, we have the second section; then, by producing a line from centre 3 passing through point X on the horizontal axis, we have the third quadrant. The remaining quadrants are found by producing lines H J; M O; N P; L I; and Q N.

To draw the Volute it will be necessary to set off a distance upon the vertical axis equal to three times the diameter of the eye, R. Then with centre I describe the first section, followed by using centre 2 for the second section of the volute. By using the remaining centres 3, 4, 5, 6, 7, 8, 9 and 10 in succession, the outer spiral of the volute will be finally completed.

To describe the inner spiral, or fillet, of the volute, mark off at R a distance equal to 1-3rd of the diameter of the eye. To find the centres of the inner spiral divide the width of the fillet, already determined, into eight parts, one of which will give us the distance of the new centres in relation to that of the old. With this $\frac{1}{8}$ part mark off the new centres, in every case below the original centres, thus being always $\frac{1}{8}$ part removed further from the arc already drawn. From these new centres proceed to describe the inner spiral in the usual way, as already stated.

I may say that the description accompanying the diagram in the book of reference is very meagre, as for example, instructions are given for finding only three of the quadrants. But by using the additional number of quadrants a better result is obtained. May I add that this diagram may prove useful as demonstrating a geometrical method of drawing a regular pentagon within a circle of any size.

The figures of the five-pointed stars will probably be of interest to members of all Craft Lodges. But particularly will the pentagon figure appeal to members of operative Masonic Lodges. Apparently these two figures, and probably the method of setting them out, was known to the early Egyptians. It will also be noticed that in addition to the outer pentagon, there are also within that figure, around its centre, two other regular pentagons, each having a different area.

CIVIL ENGINEERING*

THE author has covered in a general way most civil engineering operations and requirements. While essentially a book of engineering commonplaces and free from mathematics, the concise explanations of various methods of construction and uses of material should prove useful to the junior assistant engineer.

Specifications form a useful part of each section, it being necessary to avoid, as far as possible, variations of a scheme causing extras and omissions. In construction of works, earthworks often cause trouble, due to the variable character of the ground and inability to determine correctly what may be met with during the progress of the work. The chapter on earthworks and foundations provides useful information. The well-known pile formula—P= Wh/8d—is given, but must be taken as a guide and not as a general rule. No general formula can be given. Many engineers prefer to use test piles instead of the results of borings when fixing value of ground to carry loads.

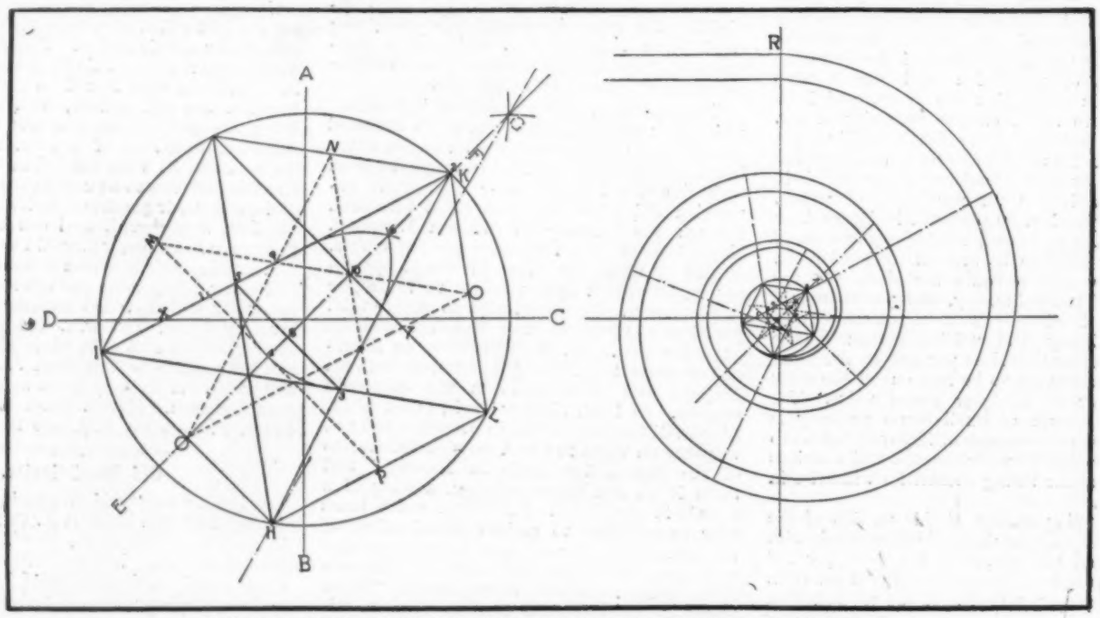
Surprises occur no matter what method is adopted.

In a particular case trial borings had been made in connection with the erection of a pier projecting into the sea: screw piles were driven about 25 ft. below ground level, inclusive of about 15ft. into the chalk. During the application of the 100 tons dead weight test load to which each centre pile of every bay was subjected, at a point about 200 ft. from the shore, the pile suddenly sank 20 ft. vertically. Subsequent investigation showed a cavity in the chalk. While it is true that strength and durability, as mentioned, are the chief considerations governing the use of stones used by the engineer, porosity and weathering qualities are frequently of considerable importance, particularly under certain conditions. Thus, porous stones are liable to disintegrate as a result of frost following a wet period.

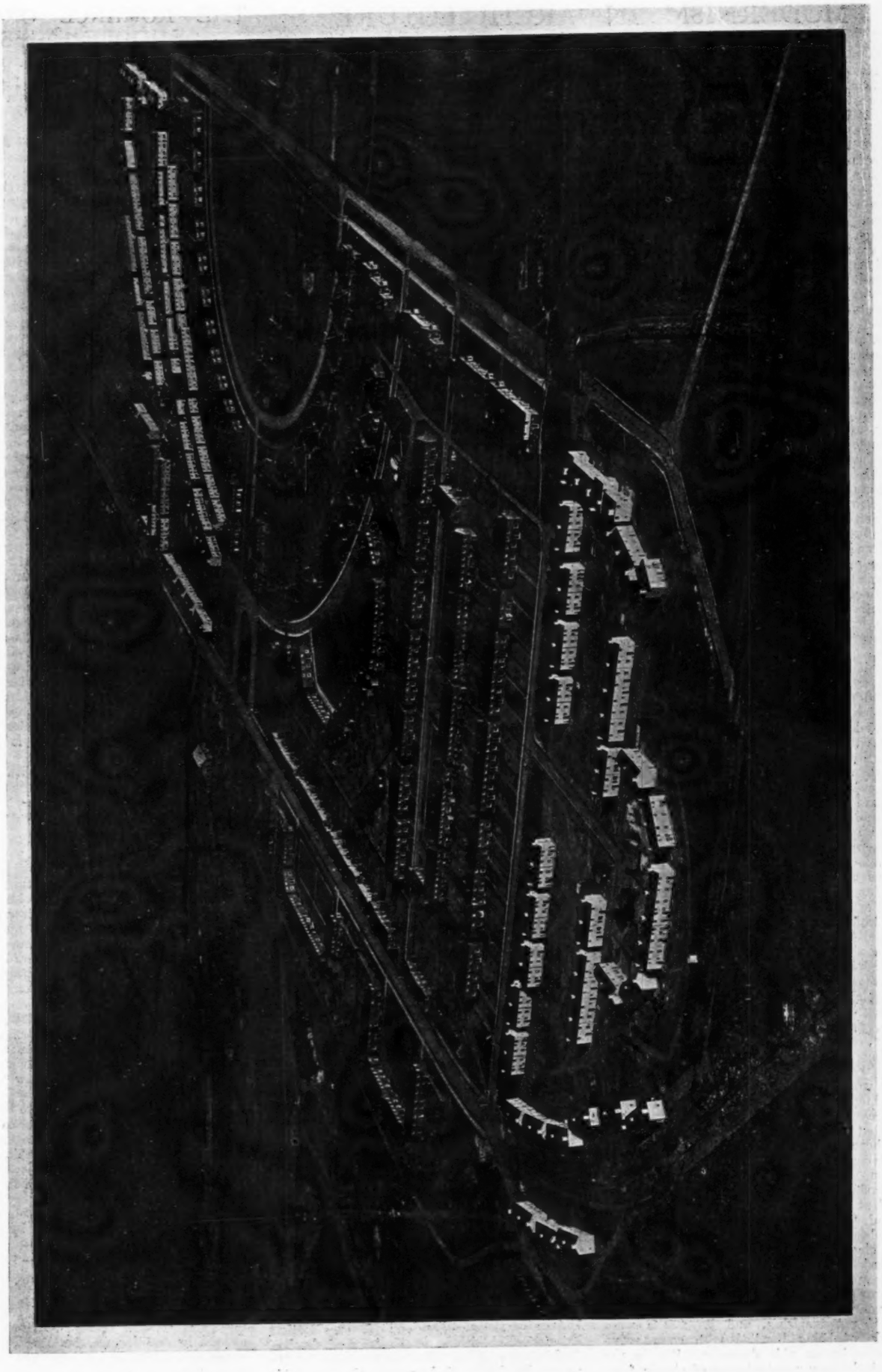
The most satisfactory means of ascertaining the properties of a stone are by actual test; this takes time and is costly. Reliable results can be obtained by a petrological examination, where sections of the stone are prepared and the resulting slides examined under a microscope. The apparatus required is simple, inexpensive, and by no means difficult to make. A decomposed constituent can be detected in this way. In this connection concrete, where the aggregate is dry granite containing decomposed felspar, would be liable to serious contraction. In metals, probably the most hurtful impurities are phosphor and sulphur; the first producing cold shortness and the second red shortness or brittleness when hot.

We notice on page 98 that three words have a displaced letter due to a printer's error; this may also account for Unwin's rule for rivet diameter being given on page 165 as $1.1\sqrt{t}$ instead of $1.2\sqrt{t}$.

* AN INTRODUCTION TO THE PRACTICE OF CIVIL ENGINEERING. By E. E. Mann. (Macmillan & Co.) Price 7s. 6d.



The Pentalpha Method of Describing the Greek Ionic Volute.



Bird's-Eye View of Dormanstown. (See p. 524.)

MODERNISM IN ARCHITECTURE

AT a meeting of the Birmingham Architectural Association some time back Mr. Howard Robertson said the subject of "Modernism in Architecture" had appealed to him for two reasons. The more important reason was that he believed that the present epoch marked a cleavage between two schools of thought in architectural design—which for lack of better definition he would term the "old" and the "new"—and the second reason, arising out of the first, was that he was particularly anxious, as one concerned in architectural education, to provoke discussion on the wisdom, or otherwise, of departure from certain traditions which the majority of architects were following at the present time.

It was an open question whether or not architecture of the present day was an expression of the real convictions of the designer, and whether the majority of architects were creative artists in the sense of evolving buildings which had beauty derived from an ennobling function, and not beauty in the form of an applied garment which was incompletely convincing owing to its unsuitability and frequent hindrance of function, independently of any question of plagiarism or pastiche.

In his opinion there existed a majority of architects who were designing in accordance with their ideals; but he believed those ideals were not innate but had been formed through the influences of poorly directed education, social snobbery, and mental inertia, assisted by the pressure of modern conditions. The remaining minority of architects appeared to be divided into the class which was attempting without ideals to live by supplying the article for which it assumed a demand, and the class which was thinking and acting with independence, receiving some support but innumerable rebuffs.

The trouble at present was that architects were failing to benefit by the heritage of tradition, and failing to add to it, possibly because its grandeur had intimidated them, and also because they had depended upon it instead of attempting by original thought to make tradition themselves. They had overlooked the great essentials of architectural composition; they had not seriously attempted to analyse or formulate them, and they had steadily piled up an immense accumulation of data regarding architectural features and details which they had allowed completely to dominate them. Curious and charming ornament arising perhaps from the naïveté of its designers, all the happy accidents and interesting conceits which were killed by repetition and copyism, were habitually thrown on the architect's screen, and in a voice charged with emotion students were adjured to sketch and measure! Sketch and measure by all means, but not to make a magpie's hoard! Not to be satisfied with a gloating over details, but to understand principles, proportion, scale, fitness, to analyse beauty, so as to be fitted to attempt it in buildings in which none of the detail motifs which they had plotted might be appropriate. Blind worship of the past, vague allusiveness regarding great buildings whose claims to greatness were seldom logically explained, the idea that no architect could originate until he had been through a period of undigested pseudo-antique or mediævalism, the dictates of fashion, all constituted so many hindrances to the production of a living architecture which aimed at the most beautiful possible combination of function and expression, suitable to and adorning the period in which they lived. The classic vocabulary which they had acquired and utilised in most of their architecture to-day was extremely flexible. It provided good or mediocre solutions for nearly every problem, solutions decent if not inspiring, and its motifs were capable of being handled with comparative freshness by an able designer. But in the deceptively easy manipulation of classic form lay the great danger. They had been vulgarised and misused through this very quality, and the rival glories and grandeurs of Greece and Rome had been butchered and cast into the gutter together. The traditional architecture of antiquity, so satisfying in many of its forms, instead of being reserved for those buildings whose civic purpose was traditional, and where a traditional treatment was therefore expressive, had been utilised as the universal cornucopia. Its output had now produced saturation, the not unlimited vocabulary was being exhausted, stagnation was setting in, and there were signs of reaction and revolt against its domination. Such a revolt was an inevitable and healthy sign of vitality and an evidence of independent thought. As long as any definite style or type of architecture was sufficiently flexible and suitable it would satisfy, provided that a desire to design in that style was really spontaneous on the part of the architect. As soon, however, as they found the combination of inadequacy to express function with beauty, and decadent vulgarisation and style dominating conception, the desire was aroused to create new forms more beautiful, more expressive, in which externals and mannerism were thrown overboard in favour of a reversion to main principles which in the process of decay had become submerged. As soon as a style became a manner, into which, to quote Mr. Roger Fry, the architect translated, and in which he no longer lived, that style was dead.

Such a situation was, he believed, being reached to-day. Architecture was generally decadent; they had only to look at the largest and most recent achievements of some of the foremost architects to realise it, and the time had come for an examination of the means for remedial action.

To achieve progress they must eliminate prejudice against experiment; they must study, and try to benefit by, the attempts of architects in other countries to design and not copy; they must broaden their outlook on the students' training, and they must remove all external hindrance from architectural progress as far as lay in their power. The heavy hand of so-called "scholarship," with its excessive cult of Greece and Rome, a competition system which offered the premium to any plan that was simple and cheap and which almost completely disregarded architecture, and a general attitude on the part of architects and their patrons of sluggish repression towards the so-called "modern"—all these must be overcome.

That it should be practically indispensable for an architectural student to utilise the recognised forms of classical or Renaissance architecture in order to win the biggest architectural prizes of the profession was as unfortunate as was the insistence of a City Corporation that its new buildings should embody the orders. As regarded competition architecture, the encouragement to beauty of design was very slight. The fashionable dictum seemed to be that the best plan was always the simplest, a very dangerous half-truth, as the simplest-looking plan in a set of designs might be the very worst in the collection. Competitions seemed to be judged entirely on apparent simplicity of plan (which should preferably be completely symmetrical), and pitiable elevations did not seem to weigh against the selection of such schemes. It was safe to say that at the present time a design such as that of the new town hall in Stockholm would have had practically no chance of being premiated in this country.

Bartlett School of Architecture.

The following election has been made at University College, London: To the Bartlett Entrance Exhibition, tenable in the School of Architecture, of the value of £40 a year for five years—Mr. W. F. B. Lovett, of the Dunstable Grammar School.

THE ROMANCE OF THE MIDDLE AGES

SIR BANISTER FLETCHER recently gave the introductory lecture of a course of twenty-four University Extension Lectures on Mediæval Architecture, at the Central School of Arts and Crafts, Southampton-row.

He dealt first with the nature of the lectures to be given under the auspices of the University of London during the coming session, and explained that he would deal with the study of architectural history on broad lines from a popular point of view and trace its evolution in the different countries of Europe. He referred to architecture as a visible exponent of civilisation uniting and embracing the other arts, and pointed out that all modern design was founded upon old art, although adapted in order to conform to existing conditions. Architecture being the basis of all design, a knowledge of it was necessary not only to designers and art students, but practically the whole community. The author and novelist, for the settings of their historical novels, the journalist and the photographer, who largely dealt with buildings, the connoisseur of the accessory arts, and the teaching profession, all required a knowledge of this essential and enthralling subject. All who travelled required a knowledge of that subject, since the lands they visited were as a closed book without that knowledge. Moreover, the architectural work of the present day was stimulated and refined by a right study of the best work of the past.

Sir Banister illustrated his lecture with lantern slides, and showed that mediæval architecture was a continuous evolution from the round-arched or Romanesque period to the pointed-arch or Gothic period, and was the result of forces and tendencies underlying the whole life of mediæval times. Views were shown, comparing the architecture of the ancient periods of history, so as to form a connecting link with the other courses of lectures. Sir Banister hoped to introduce the atmosphere of the mediæval period and form a sense of association between architecture and history, which formed the stage upon which it had been enacted.

The next lecture will deal with a typical mediæval cathedral.

STEEL FRAME BUILDINGS

ANYONE looking through the pages of the brochure recently issued by Messrs. Dorman, Long & Co. would, we think, be much impressed by the variety and extent of steelwork carried out by this well-known firm all over the world. The advantages of steel-framed buildings are apparent enough, and if the constructional truth of the buildings could be made clear the theorist would be happy enough. It is not apparent yet, however, how we are going to fit our theoretical idealities into practical works, and we must realise from the pages of a striking brochure like this from Messrs. Dorman-Long that the value and efficiency of steel-framed buildings will for long to come triumph over any other forms of construction we yet know of for commercial purposes.

It is satisfactory to see that we have in this country a firm so well equipped for carrying out steelwork in such a variety of forms in every sort of place and conditions. The view on p. 523 shows the admirable housing scheme they have so far carried out, which is a striking illustrations of their enterprise. Our readers will have noticed that their Exhibition stand at Wembley was designed by Sir Edwin Lutyens.

The Hackney Institute.

The prospectus of the Hackney Institute for 1924–5 has recently been issued. The architectural and building trades department includes courses in architecture, building construction, carpentry, and joinery, woodworking machinists' work, plumbing, and painters' and decorators' work.

BOOK REVIEWS

A Hundred Years of Portland Cement. By A. C. DAVIS, M.Inst.C.E.I., M.I.Mech.E., F.C.S. xxii + 282 pp.; 41 illus. (London: Concrete Publications, Ltd.) Price, cloth binding, 21s.; leather, 25s.

This volume has been specially written to mark the centenary of the invention of Portland cement in 1824. In addition to a complete history of the growth of the cement industry from the early days until it has arrived at its present position as one of the most important industries in the world, a mass of information is given on the different methods of manufacture during the period under review. The value to the consumer of the improved methods of manufacture in modern cement works is shown by the fact that whereas in 1852 the tensile strength of the neat Portland cement on the market was only 100 lbs. tensile per sq. in. at seven days, present-day cement has a strength of 750 lbs. per sq. in. at the same period. The statement so often made that Joseph Aspdin, a bricklayer of Leeds, was the inventor of Portland cement, as we know it to-day, is not accepted by the author, whose researches have led him to the conclusion that Aspdin was the inventor of the name "Portland cement" only, and that similar cements were made earlier than the date of Aspdin's patent (1824) by Vicat in France and Frost in England.

The volume contains a summary of the Portland cement specifications of the world, and a great deal of information which should be of value to all architects, engineers, and builders who take an interest in the materials they use, and also to chemists and geologists. An appendix gives in full the early patent specifications for Portland cement by Higgins, Parker, Frost, Crampton, Ransome, Stokes, Hurry and Aspdin. The volume is well bound, and has been produced in an attractive manner suitable to the important event it commemorates.

House and Cottage Construction. By H. BRYANT NEWBOLD, M.S.A. With special chapters by GUY CADOGAN ROTHERY, PAUL WILLOUGHBY, F.S.Arc., E. W. KING (Past-President, South Wales Federation of Building Trades' Employers), E. J. STRANGE (Past-President, Institute of Builders), M.R.San.I., A. C. MARTIN, A.S.San.I., R.P. Vols. II and III. Price 19s. 6d. per vol. (London: Caxton Publishing Co., Ltd., Clun House, Surrey-street, W.C. 2.)

The combination of theory and practice which goes to the make up of scientific modern building construction is well illustrated in these volumes on House and Cottage Construction.

The first volume of the series dealt with the general aspects of the provision of dwellings, the relation of design with the site and the conveniences of disposition and arrangement of rooms in connection with the points of the compass. The second volume begins with a description of the actual work to be done on the site in forming the foundation and footings, the means to be adopted to keep the house dry, and many similar practical points. The problem of building on sloping ground is dealt with, and a short note on retaining walls will afford comfort to puzzled readers.

Whether this subject can with safety be dealt with so briefly may be questioned, especially in view of the statement on a preceeding page in connection with the levelling of the site. "Terracing can be carried on without retaining walls when the height is not great, the soil is fairly good, and the dead load of the house is low or is borne on the solid subsoil." While this may be a useful encouragement to the over-cautious, it can become a terrible trap to the optimistic reader, and only experience can decide the appropriate limits to be assigned to the expressions "not great" and "fairly good." The distance of the edge of the terrace from the wall base has also to be taken into consideration.

Unfortunately the figures given on page 6 for the dimensions of retaining walls are also inclined to the optimistic side, and the statement that under certain circumstances "little more than a facing wall is needed, if built on a slope with buttresses, say a brick thick," is very minutely dependent upon the exact angle of "slope" in connection with the angle of repose of the materials to be supported, and, while this is a matter of general knowledge among constructors, the reader who happens to be ignorant of it will be the one to deceive himself.

The statement "Burnt clay, dug from the site, and broken up, also makes a suitable aggregate for foundation work," might be fairly qualified for the inexperienced by the addition of the caution that thorough burning of the clay is essential to its durability. In most cases the dangers arising from lack of caution are forcibly put before the reader. "Asphalt should only be laid while hot on a dry surface. Excess of moisture on the under surface is likely to cause steam, which gives rise to bubbles and these may burst, so destroying the seal . . ." and vitiating the damp-excluding properties for which the asphalt has been applied.

Some useful hints are given concerning the cause and cure of dampness in walls, and the contention that vegetation should be allowed on walls in the interests of picturesque appearance is combated by the author, who has removed the roots of Virginian creeper from the inside of a 12 in. wall, the roots causing cracks in the walls and peeling away of the plaster.

In connection with brickwork the types of bricks in general use are described, the R.I.B.A. standard of brick dimensions quoted, and several figures given for quantities of different bricks, and crushing and safe strength under live or dead loading.

Bond and reinforcement of brickwork and examples of the use of ornamental brickwork in chimney pieces are also described.

Stonework and masonry are briefly treated as not coming so frequently into ordinary house and cottage construction, and the question of lime or cement mortars and the use of special hollow brick-blocks is debated. The difficulties attendant upon the use of faced and lined walls and veneered walls are pointed out in a separate chapter.

"Mud walls of every description," writes Mr. Newbold, "being composed of non-conducting materials prove cool in summer and warm in winter They, therefore, go far to make comfortable houses. However, they require care not only in building, so as to make them as solid as possible, and to give them the utmost protection, but constant attention as to upkeep. If defects are early detected and remedied at once, the walls will remain weatherproof and stable practically indefinitely, for there are well-authenticated examples of quite ancient cob cottages in Devonshire and *pisé de terre* houses in France."

Half-timber work and its modern equivalent the portable frame building, receive attention, even sham timbering being noticed, but concerning this last we are happy to endorse the author's concluding remark: "it is not a method to be recommended."

The up-to-date wall linings and the more conservative alternative of plaster are compared. For detachable wall finishings it may be claimed that they facilitate the drying out of a house since they do not contain the amount of water that goes to the composition of plaster.

Something like one-third of Volume II is devoted to the discussion of concrete, under the chapter headings of "Concrete: Mass Construction," "Concrete: Blocks and Slabs," "Concrete: Pre-cast Work," and "Concrete: Reinforced Construction."

The third volume continues the treatment in detail of various parts of the house, "ceilings," "roofs and roofing," and "staircases" being dealt with in turn. Under the heading "Carpentry," different methods of shoring and scaffolding are illustrated, and a list of knots used in tying a pole scaffold is given. The knot shown in Fig. 8 is, however, the "cow" and not the "clove" hitch, as described in the text. Fig. 23 correctly illustrates the clove hitch which has the advantage over the "cow" that it is made tighter by pulling on either one or other or both ends of the rope and holds from the moment it is tied.

A great deal of detailed information on "Sanitation and plumbing" (including hot water supply) is contributed by Mr. A. C. Martin, A.R.San.I., who has also written a chapter on "Waste disposal work." Both chapters are excellent. Instructions as to "Outbuildings and Boundary Walls" are followed by Mr. Paul Willoughby's contribution on the "Conversion of Cottages." The plans for conversion are distinctly reasonable.

The third volume is concluded with a chapter on "Repairs" and an index applying to the three volumes as a whole. The work is illustrated by many diagrams, photographs, and by coloured plates reproducing working drawings of house and cottage designs by various architects.

The Builders' History. By R. W. POSTGATE. Published for the National Federation of Building Trade Operatives by the Labour Publishing Co., Ltd., 38, Great Ormond Street, London, W.C.1. Price 12s. 6d. net.

The National Federation may well congratulate itself upon its choice of a historian. Mr. Postgate has produced a work of extreme interest, and one that has entailed a vast expenditure of labour and research in all parts of the country. So much of the information here contained was otherwise destined to oblivion that this volume will no doubt eventually take its place as the standard work on the trade union movement from its earliest beginnings to the present day.

The outstanding personality in the history of trade unionism is unquestionably that of Robert Owen. Starting life as a model factory owner, he became a pioneer in communistic settlements in America, and when they (naturally enough) failed, he founded co-operative communities or co-operative societies for production. Owen wielded an extraordinary influence over his followers and as time passed appears to have lost to a great extent his mental balance. His dogma that "man's character is formed for, and not by, him" might have been a harmless error if he had not attempted to force this belief and others of the same kind, with their consequences, into his programme of reform, and thereby brought the whole trade union movement to disaster in 1834.

Another commanding personality who, we are glad to say, is still with us, is Robert Applegarth. Beginning his constructive work in 1858, when he was 24 years old, Mr. Applegarth grasped many truths that appear to-day to have eluded the intelligence of many trade union leaders. His essential sanity and breadth of vision were well illustrated in a speech delivered in 1866: "With regard to strikes he would tell them at once that he did not approve of that way of doing business, except in cases of absolute necessity and when every other means had been tried and failed to accomplish the desired object. If they had any grievances they should write to their employers, and if they refused to agree to their terms, or took no notice of their appeals, the best thing was not to strike, but to lay their claims before the public; and the masters would then be compelled to state their objections, on which the public would pass their opinion, which they might consider as the verdict of a jury. If the public agreed with the employers it was of no use for the Society to press their case any further, and if public opinion was with the men it would be no use for the masters to try to hold out any longer, for it was not out of the employers' pockets that the advance of wages or the reduction of hours would come; as in all such cases it was the public and not the masters who had to 'pay the piper.'"

Compare these words with the advice now given on page 448 of this book:—"Their attitude (i.e., that of the employers at the Building Parliament) to-day should warn us to beware of thinking that control of the industry can be achieved by any method of conciliation and constitutionalism. 'We are respected only when we are feared,' and the building workers can attain their victory only by reliance upon their own strength, not upon any appeals to the masters' better nature." It is astonishing that a book written in so impartial a spirit should end with such advice. Mr. Applegarth

saw that the public is and must be the final arbiter, and he realised that a strike that has not public sympathy behind it cannot succeed. Do the trade unions still believe—in spite of all the lessons of the past—that the public is to be made to concede demands irrespective of their justice? Can they still imagine that just demands will get a fair hearing when they are coupled with threats? If so it would appear that the lessons of this excellent history have been so much experience wasted, and the days when Labour will take its rightful place are as far off as ever. The policy of force is as deplorable and futile when wielded by Labour (even if it had it to use) as it is in the hands of employers or anyone else.

Labour often seems to imagine that the man who actually lays the bricks or the man actually behind the gun is the only person who does any real work; the architect who designs the whole structure and the general who plans the whole campaign are treated as though they ought to be thankful to get any recognition at all. Trade unionism is a necessity and, wisely guided, can be a great power for good.

We congratulate the author upon the successful completion of an extremely difficult task which has resulted in a volume as well presented and as attractively written as it is cheap at its price.

Modern Wood-Working Machinery. By STAFFORD RANSOME, M.Inst.C.E.

There is a vast store of information in this book for all who are interested in, or will be interested in, wood-working machinery. The operative who reads this work will find much that he would otherwise be unacquainted with. He must benefit by the better understanding he will have of the machine which, as a worker, he is called upon to use. The manager will be better able to advise upon the policy of adopting this or that machine which will be necessary to carry out certain work. The proprietor who finds it necessary to become acquainted with wood-working machinery will be well advised to peruse this work carefully.

It must be understood that the book is written for Colonial and foreign buyers, as well as for the home purchaser, but there are a few further essential points to consider when deciding to lay down a plant. Mention might be made of the Home Office Regulations which may become very costly to meet if not kept fully in mind when the lay-out is considered; also many operatives need more complete instruction upon such important subjects as balance, allowance for throw, and maximum rate of feed, giving satisfactory results in different kinds of material under varying conditions. The manager and proprietor would be able to approach new schemes with more confidence if some approximate idea of cost, based upon a few typical lay-outs, could be given, and a few hints upon rating charges would be invaluable. Even if these several points do not directly apply to the purchaser, they would serve to remind him that there may be restrictions in his district or country that he must conform to. The comparative values in different places are not difficult to compute. Although these points occur to one as being necessary, the book is nevertheless a useful addition to the bookshelves of all who have an interest in wood-working machinery.

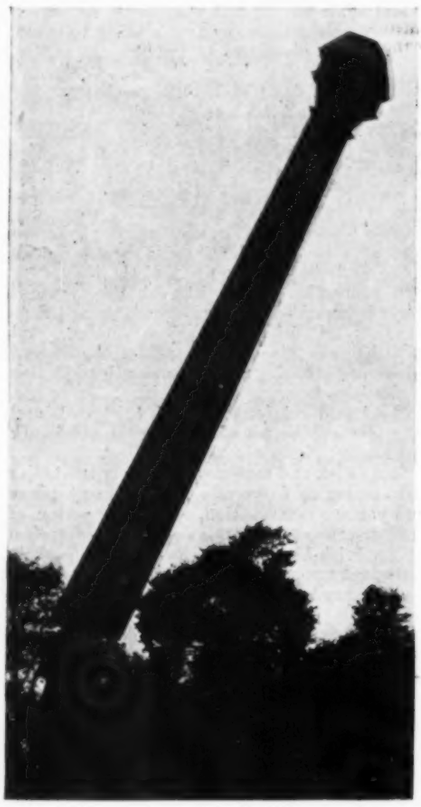


FIG. 2.

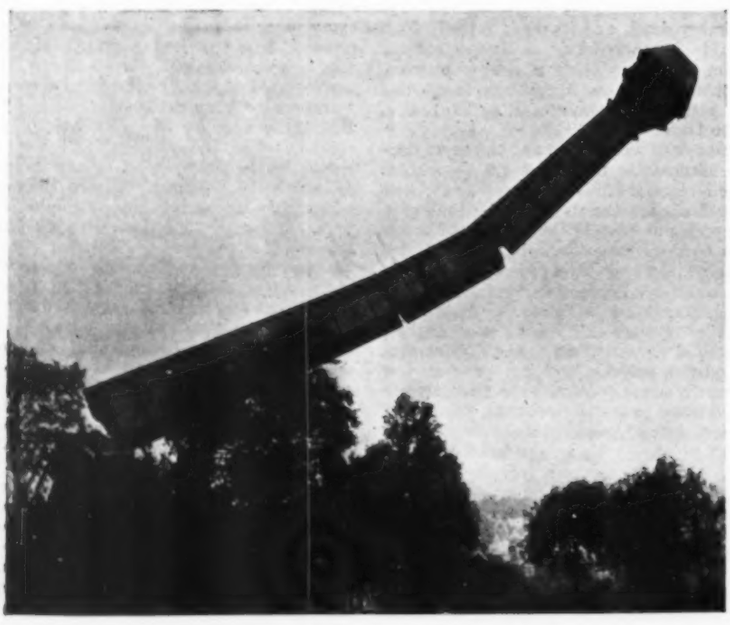


FIG. 3.

FIG. 1.

Books Received.

BUSINESS FIRST PRINCIPLES. By A. F. Shepherd. (London: Business Builders, Ltd.) Price 1s. net.

LONDON. By George S. C. Swinton. (London: John Murray.) Price 1s. net.

OLD DOMESTIC ARCHITECTURE IN HOLLAND: Edited by F. R. Yerbury. (London: The Architectural Press.) Price 25s.

A HUNDRED YEARS OF PORTLAND CEMENT, 1824–1924. By A. C. Davis. (London: Concrete Publications, Ltd.) Price 21s.

PERSPECTIVES. By Albert C. Freeman. (London: Drane's.) Price 10s. 6d. net.

ANCIENT AND MEDIÆVAL ARCHITECTURE. By Theodore Pignatorre. (London: Drane's.) Price 21s. net.

LIVERPOOL CATHEDRAL. By Vere E. Cotton. (Liverpool: Littlebury Bros., for the Liverpool Cathedral Committee.) Price 1s. net.

TABLES OF STEEL COMPOUND GIRDERS.—By F. B. Mason. (London: Chapman & Hall.) Price 10s. 6d. net.

MAP OF ROMAN BRITAIN. (Southampton: Ordnance Survey.) Price 4s.

LONDON. (Odhams Press, Ltd.) Price 1s. net.

GOOD AND BAD MANNERS IN ARCHITECTURE. By A. Trystam Edwards. (London: Philip Allan & Co.). 6s. net

THE HISTORY OF THE TEMPLE CHURCH, LONDON. By J. Bruce Williamson. (London: John Murray.) Price 21s. net.

A HISTORY OF ARCHITECTURE. By Sir Banister Fletcher. (London: B. T. Batsford, Ltd.)

CHIMNEY DEMOLITION

THE illustrations on this page show the method adopted by Mr. W. Larkins for felling a chimney at Bedfordwell Waterworks recently. The chimney stood on buttresses and had a head weighing nearly 50 tons, which buried itself 20 ft. into the ground. No props or explosives were used, but the base was simply cut into until it toppled over. Fig. 1 shows the thin lath inserted into the gap to give warning of a sudden settlement. Fig. 2 shows the beginning of the fall. The men had thirty seconds to get clear of the scaffold 30 ft. up. Fig. 3 shows the chimney about to fall within a foot of the mark for which it was intended.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

**** *We are glad to give questions and answers but cannot accept responsibility for contributed replies, especially on legal matters.*

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or better still, in typescript?—ED.

Preparation of Designs.

[REPLY TO MR. C. R. MILLINGTON.]

SIR,—It is established that an architect holds himself out, amongst other things, to shield his client from all possible liabilities, and that it is his duty, as part of his undertaking, to ascertain, and to comply with, the requirements of all public and local statutes regulating buildings, &c., in the locality of the buildings; and, with all sub-statutory legislation, such as by-laws, made under them. See James *v.* Masters (1893, 1 Q.B. 355.) Ignorance of them may mean that the client will be called upon for a fine, or to pull down part or the whole of a building. (See Hopkins *v.* Smethwick Local Board, 1890, 59, L.J., Q.B. 250.) An architect is, however, not expected to have a minute and accurate knowledge of the law; but he must have a knowledge of the general rule of law governing and applicable to his profession. (See Jenkins *v.* Betham, 1855, 15 C.B. 168.)

In any proved failure of his duty, in law, an architect may be sued for total loss thereby resulting to his client; whether that exceeds or falls short of the remuneration agreed upon. Futher, if he acts without due care and skill, the client is entitled to dismiss him. (See Hadley *v.* Baxendale, 1854, 9 Exch. 351; Saunders *v.* Broadstairs Local Board, 1890; Vol. II, Hudson on Building Contracts, 159; and Harmer *v.* Cornelius, 1858, 5 C.B. (N.S.), 236.) Further, an architect may forfeit his right to remuneration, wholly or in part, because a person that holds himself out to be skilled in any art, cannot recover for services which he should have known would be useless.

It follows that an architect must make himself acquainted with all matters which appertain to the interests of his client, and, the exercise of his profession, in so far as he has access to information such as the existence of a town-planning scheme; and the provisions of the Town Planning Acts are, or should be, well known by the profession.

Wherefore, although it may be a hardship, it would appear that failure to acquaint himself with the existence of a town-planning scheme as affecting his client's enterprise is a neglect of duty on the part of the architect, and the contract with the client, express or implied, is thereby broken. "TOWN PLANNING."

SIR,—Without suggesting a ruling upon the very interesting point raised by your correspondent, it may interest him to hear of a somewhat parallel case. A certain bank extension was planned in a narrow street in a Midland city, and full working drawings were prepared and quantities taken off. On the plans being submitted to the local authorities, the information was given in the strictest confidence that a street widening scheme was to be applied to the street in question, the set back frontage line entirely destroying the arranged plans. In this case, the clients fully admitted the architect's claim to their full proportion of fees on the abandoned scheme, and the local authorities agreed to full compensation in this respect. The essential difference between this and the case quoted by Mr. Millington, is that, while street widening schemes must be kept secret, up to a point, to prevent gambling in values, the country town-planning scheme must be well advertised to encourage building enterprise. I, however, give the instance for what it is worth. "FRATER."

House "Fit for Habitation."

[REPLY TO "INQUIRER."]

SIR,—The enquirer does not state if he was served with a notice under Section 94 of the Public Health Act, 1875, or Section 28 of the Housing, Town-Planning, &c., Act, 1919. If the former, it is open to him to abate the nuisance by doing such works as he thinks will suffice and relet the house, leaving to the local authority any action which it may think fit to take before a Court of Summary Jurisdiction as to any default in complying with the Section.

If the latter, then, under Section 28 and following sections, the local authority has far larger powers; for, though it would appear from the marginal note to Section 28 that it is only confined to repairs, it is thought that the powers given to the local authority by this section go much further, and are not thus restricted.

Unless inquirer can show that works that he proposes to do will make the house in all respects reasonably fit for human habitation, he must comply with the requirements of the notice; and he should get in touch with the local authority and endeavour to settle with it the minimum to satisfy the requirements of the section, especially as in certain circumstances the local authority can do the work required to be done, and recover the expenses incurred.

The inquirer does not say if a closing order has become operative. If there be one and he relets or occupies he is liable to a fine, *i.e.*, £20.

"LEGALITY."

Rights of Light.

[REPLY TO "SURVEYOR."]

SIR,—In reply to the inquiry of "Surveyor," in a recent issue of *The Builder*, the subject of natural illumination has received little or no attention in technical literature. The National Physical Laboratory, Teddington, made numerous investigations for the Home Office Committee on factory lighting, but the Report of that Committee (Cd. 8,000) is now out of print. A résumé of British and foreign research into the subject was embodied in a paper read by Messrs. P. J. & J. M. Waldram before the Illuminating Engineering Society in 1923, together with a description of methods of predetermining the effect of altering existing obstructions, both on natural light and the access of direct sunlight. Copies of this paper can be obtained from Messrs. Batsford.

There are one or two old works, Molesworth's "Obstruction to Light," for example, copies of which can be found in some technical libraries; but the accuracy of the methods which they recommend is not, except as regards direct sunlight, borne out by modern research. I am informed that arrangements are in progress for including the subject in the programme of sessional papers to be read at the R.I.B.A. this year.

A paper bearing more directly upon the effect of natural light on rental and capital value is also in course of preparation by one of the authors of the paper published by Messrs. Batsford. "P. J. W."

Cavity Walls, &c.

[REPLY TO W. F. KENNELLY.]

SIR,—The concrete slab system mentioned in *The Builder* of September 26 appears to me to be the most satisfactory up to the present, and the speed of building should be, I think, 60 to 70 per cent. faster than building in brickwork. It would be interesting, however, to compare the cost of building a house with cavity walls (as mentioned) with that of brickwork, and I should be glad if any of your readers can enlighten me as to whom and where I could obtain full particulars of this system. "BUILDER."

Rendering Accounts.

SIR,—I have been a reader of *The Builder* for some years, and through your Architects' and Builders' Inquiry Bureau I should be pleased to receive the following information, viz.: What is the correct method for rendering accounts for jobbing and building works other than works contracted for. Is it usual to give every item of material and labour with the price against each item?

Also, what is the recognised fair gross profit to add to materials and labour for jobbing and other works? Any information upon these points will be greatly appreciated, as I have been in the building business some little time and often have difficulties with accounts.

"YOUNG BUILDER."

Concrete Blocks v. Brickwork.

SIR,—In reply to "Surveyor," I may say that as a general rule the London builders have not sufficient room to make concrete blocks, otherwise their use would be general in London, for they are much cheaper and a building can be erected in half the time that it takes for bricks. A properly made concrete block is waterproof on the "face," and no condensation will appear on the inside.

There is a machine on the market which, with one man, will make 150 blocks, 18 in. by 9 in. by 6 in. in eight hours. This is equal to 1,200 bricks, and each block, which is equal to eight bricks, can be produced at 3½d. each. Rock face, pebble dash, rough cast, or imitation stone finish can be given to these blocks, and colour finish can also be employed to advantage.

There is also a great saving in mortar, for a concrete block only requires the same amount of mortar as used for four bricks, and a concrete block can be laid in the same time that it takes to lay three bricks, thus there is a saving also of labour. J. WOOLLARD.

Sand Lime Bricks.

SIR,—Your note upon the abundance of brick earth in this country as the cause of the non-use of sand lime bricks is so very correct that any word added thereto will be uttered with the utmost diffidence. There is, however, an acknowledged shortage of bricks, and it is difficult to understand this in the light of the abundant natural supplies of the raw material. It can only indicate some influence of a purely artificial character at work. If there is anything in this, any competitive method that can be found to stimulate the limitless potentialities of brick-making should be encouraged in every way, and the sand lime brick does seem to answer very well as a substitute. The concrete cement block cannot at present compete, owing to the relative costs of the component parts of brick and cement, in their raw state; but the sand lime brick starts on sound ground and should do well in this country at any rate for a time.

"COMPETITION."

Grano-Paving.

SIR,—We have it dinned into us from a very early stage of studenthood, that cement should not be beaten up again after it has commenced to set, and yet the usual practice of laying cement grano-paving is to allow the surface to initially set, and then scour it to a fine surface. The result, when performed by skilled workmen, is a very fine hard surface that has been observed to wear well in many instances. Can any reader explain this apparent ambiguity?

"STUDENT."

Brands of Timber.

SIR,—The quality of timber with which we have been served since the war days has rendered the job of supervising building doubly difficult and responsible. Probably the only safe way finally to judge timber is by the brand, and as these have been much altered of late years, a sound source of information is missing. Could any reader inform me where an up-to-date list of timber brands can be obtained? Many timber merchants seem very shy of giving this information.

"CAUTIOUS."

THE BUILDING TRADE

THE LAW RELATING TO BUILDING

By W. T. CRESWELL, Lic.R.I.B.A., F.R.San.Inst. (Barrister-at-Law).

XIV.—DEFECTS AND MAINTENANCE.—PENALTIES AND LIQUIDATED DAMAGES.

It is obvious that the system of visiting the works at intervals does not bind the architect to detect every defect in its initial stages—and the "Conditions of Engagement" set out by the Royal Institute of British Architects provides that "constant superintendence of the works does not form part of the duties undertaken by him and is not included for"—in the scale of charges.

Defects and Maintenance Clause.

For the above reason, and in the interests of both parties, contracts usually include a "defects and maintenance" clause—which protects the employer against damage from defective work and its results within a reasonable time—usually six months—and, on the other hand, determines the period of liability, in respect thereof, on the part of the contractor. The contractor must be allowed opportunity to make good the defects complained of.

The contractor cannot be held liable for damage from "wear and tear" during this period, unless such wear and tear is the direct result of defects for which he is liable. He is, however, liable for defects the causes of which may not be ascertained until after the period of maintenance. It is only in very aggravated circumstances that a contractor can be held liable for defects appearing after the expiration of the period; the architect's final certificate of satisfactory completion provides the contractor's release, unless fraud or collusion can be proved. But the contractor is at any time liable for defects pointed out to him during the maintenance period.

Fire—Frost—Inclement Weather.

A clause for "defects" only does not impose liability for damage from these causes; but if "maintenance" is included the contractor must prudently insure against fire, and make any allowance necessary for climatic difficulties, as he will then be liable for all these, during the period fixed.

Improper Work.—Opening Up.

Usually the architect is empowered to order the removal of bad work, during the currency of the contract; but it would appear that, with the expiration of the maintenance period and the granting of his final certificate, his power ceases.

The architect may also demand that work be opened up for the purposes of inspection, up to the end of the maintenance period, if he has reason to believe defects may thereby be disclosed.

Sub-contractors.

The general contractor should, in all cases, see to it that sub-contractors undertake liability for all matters connected with their sub-contracts, where liability is laid on himself by the general contract, if such is his intention. However, if a sub-contractor is engaged directly by the employer, the general contractor can only be liable for defects or damage in the work, if he has expressly contracted to take over this responsibility.

Penalties and Liquidated Damages.

It is usual to protect the employer against undue delay by fixing a sum—per day or week—to be paid as a fine or penalty, during the period following the agreed date of completion.

A penalty is recoverable up to the amount of actual damage or loss caused; liquidated damages is the exact sum named, being taken as the previously ascertained loss to the employer in respect of delay.

In an action for damages, the Court may interchange these two terms, in construing the phraseology of the contract, according as the intention of the parties is ascertainable. Because in practice they are often used carelessly, the one for the other.

Anson's Rules.

These are useful as a guide to the correct employment of these two terms:—

1. If a contract is for a matter of uncertain value, and a fixed sum is to be paid for the breach of one or more of its provisions, the sum may be recovered as liquidated damages.

2. If a contract is for a matter of certain value, and on breach of it, a sum is to be paid in excess of that value, this is a penalty and not liquidated damages.

3. If a contract contains a number of terms, some of certain and some of uncertain value, and a fixed sum is to be paid for the breach of any of them, this is probably a penalty.

These rules may be applied to the clause fixing the date of completion.

Rule (1) would apply where the clause fixed a fine per diem or per week in case of delay in completion. And it would appear, therefore, correct to describe these fines as "liquidated damages" in a building contract.

Bonuses for Earlier or Punctual Completion.

It is sometimes offered, in conjunction with the penalty clause, that bonuses will be paid if the work is completed punctually or before the date fixed. These bonuses may then be claimed by the contractor, even if the work is delayed *beyond* the fixed date, when, and if, he can show hindrance on the part of the employer, as having prevented him from earning them. For instance, hindrance, due to the advent on the work of sub-contractors controlled directly by the employer or his agent, has been successfully pleaded as a reason why bonuses should be paid to the general contractor, whose work was thereby delayed, when otherwise he would have completed, and earned the bonus.

Building Surveyors' and Inspectors' Association

A meeting of this Association was held recently at Liverpool. It was arranged to hold the next two quarterly meetings on January 10 and April 4, 1925, at Manchester and Liverpool respectively, and to invite the members of these towns to arrange for papers or lectures to be given at each meeting. The Association also decided to offer a prize of three guineas for the best paper submitted on "Reinforced Concrete."

COMPARISON OF PRICES OF BUILDING MATERIALS BETWEEN AUGUST 4, 1914, AND OCTOBER 1, 1924

Material.	Aug. 4, 1914. £ s. d.	Nov. 11, 1918. £ s. d.	Sept. 1, 1924. £ s. d.	Oct. 1, 1924. £ s. d.	Rise or Fall during Month. (Per cent.)
Bricks—					
Best Stocks	1 16 6	3 3 6	4 3 6	4 3 6	—
Flettons	1 14 0	2 7 8	2 13 3	2 13 3	—
Glazed	13 0 0	17 17 6	23 0 0	23 0 0	—
Thames Ballast	5 9	17 0	10 6	10 6	—
Thames Sand	7 3	17 0	15 6	15 6	—
Shingle (¾ in.)	—	15 0	14 0	14 0	—
Portland Cement	1 17 0	3 8 0	2 18 0	2 18 0	—
Ground Blue Lias Lime	1 0 0	2 2 6	2 4 6	2 4 6	—
Grey Stone Lime	1 8 0	2 7 0	2 11 9	2 11 9	—
Bath Stone	1 7½	1 7	2 9½	2 9½	—
Portland Stone	2 4½	2 10½	4 4	4 4	—
Good Sound Building Timber—					
4 in. × 11 in.	16 10 0	53 0 0	34 0 0	32 0 0	—5.88
3 in. × 7 in.	13 0 0	46 0 0	25 10 0	23 10 0	—9.80
3 in. × 11 in.	15 0 0	50 0 0	30 0 0	28 0 0	—6.66
2 in. × 11 in.	—	51 0 0	30 0 0	28 0 0	—6.66
2 in. × 7 in.	—	46 0 0	24 0 0	23 0 0	—2.04
3 in. × 4 in.	—	—	24 10 0	24 10 0	—
Slates—					
24 in. × 12 in.	—	—	37 12 6	37 12 6	—
22 in. × 12 in.	—	—	34 0 0	34 0 0	—
20 in. × 10 in.	—	—	25 12 6	25 12 6	—
16 in. × 10 in.	—	—	17 12 6	17 12 6	—
16 in. × 8 in.	—	—	13 15 0	13 15 0	—
R.S. Joists	9 10 0	—	13 10 0	13 10 0	—
Iron—					
Common Bars	9 0 0	16 10 0	13 10 0	13 10 0	—
Mild Steel Bars	9 5 0	21 0 0	12 10 0	12 10 0	—
Steel Bars	9 5 0	19 10 0	13 0 0	13 0 0	—
Cut Nails	11 10 0	29 0 0	20 10 0	20 10 0	—
Sheet Lead	22 15 0	40 0 0	43 0 0	44 0 0	+2.33
Glass—					
15 oz. Sheet	2	7	3½	3½	—
21 oz. „	3	8	5	5	—
26 oz. „	3½	9	6	6	—
Raw Linseed Oil	2 4	8 4	3 11	3 11	—
Turpentine	2 6	11 0	5 11	5 11	—
Ground English White Lead	30 5 0	60 10 0	57 0 0	57 0 0	—
White Lead Paint	—	83 10 0	80 5 0	80 5 0	—
Red Lead	28 10 0	47 0 0	52 0 0	52 0 0	—

LONDON BUILDING TRADE FRICTION

WE have received the following letter from Mr. S. Stranks, Organiser, A.U.B.T.W. :—

SIR,—I crave your indulgence to deal with one or two points raised by your correspondents in *The Builder* of September 19 and 26. In the first place, I agree with Mr. Steffens when he expresses the desire for an exchange of views on this matter. In some way the present relations between the London builders and operatives must undergo a change if the present chaotic conditions are to be improved; certainly it does little credit to any of us. If more publicity were thrown on the actual negotiating proceedings it might be the means of assisting in a better state of affairs existing.

The National settlement has proved, as some of us anticipated, to be no settlement at all so far as London is concerned. We did expect, in view of the facts and circumstances existing prior to the dispute, that any terms of settlement effected would have provided either definite terms, or some machinery whereby the differences would have been dealt with. Instead of which, immediately we settle down to apply the references in terms of National settlement we revolve round to exactly the same position existing prior to the dispute.

Whose fault is it we have again arrived at a deadlock? Have our National representatives failed, or have the London builders failed to appreciate the spirit and intention of reference to London? Or is it the stupid pursuit of a fetish by the operatives which is the cause?

According to the settlement the London Regional Council met a few days after the dispute was closed for the purpose of discussing and effecting agreement on outstanding differences. The employers insisted before any discussion on wages should take place we were to accept a 46½-hour week. To this we demurred, pointing out that in our opinion clause 5 of the National settlement was an instruction by way of inquiry to go into not only hours, but wages and other matters. The operatives proposed that we proceed by way of inquiry into all these matters with the idea of reporting results of same to the members of both parties, but employers opposed. In view of the deadlock it was then suggested from our side that we invite representatives from the National body to meet representatives of London employers and operatives and thus try to effect an agreement. Again the employers took up a negative position.

The operatives' policy was directed broadly to face all our differences under clause 5 in the hope of securing agreement. We feel the present unsatisfactory situation does neither side credit; continual unrest in shops and on jobs is a costly business to employers, building owners, and more especially to trade unions. I cannot help but think employers are badly led; they are straining at the letter of terms of settlement without regard to the facts of the whole situation, and simply ignore the spirit and human side of the problem. There can be no hope of relations getting back to normal in such an atmosphere.

I do hope, in the interests of all, that after reconsideration the employers will take a different view. If not, do they imagine the operative, next spring, will accept in a docile spirit a 46½-hour week? No; he will be more incensed at the attitude taken up by the L.M.B.A., the result being more and more disruption.

This brings me to the argument used by one of your correspondents, to the effect that the operative, in a big majority of cases, wants longer hours. What a singular thing the employer is able to gauge the requirements of our members better than their own representatives. There are some operatives who have no respect for a 44-hour week; they never had respect for 50, or, for the matter of that, a 56-hour week. Trade unions cannot allow this type to dominate its activities any more than the L.M.B.A. can look with favour on unprogressive or extreme selfish elements dominating its policy. I would suggest to any employer it is not wise to lend too free an ear to such cases; the union is the authority. We could with just as equal force point out many builders do not agree with the policy of the L.M.B.A., but we accept that Association as the authoritative body for builders in London.

Apart from the main reasons on the hours' question, there are special reasons why the employee in London insists on a 44-hour week. Mr. Steffens, in your last issue, draws attention to time spent travelling. There is not another centre where the operative puts in so much time in this direction. Again, the L.M.B.A. insist upon the employee working 8½ hours a day with one break, viz., dinner hour. This cannot be done, except at the cost of efficiency. Just imagine a man or youth day after day having only one hour break in ten or ten-and-a-half hours occupied in work and travelling. I estimate the majority of employees to be in this position in London. This is neither rational nor human, and I am sure such a proposal is not based on the knowledge of the power of any physical frame responding so far as efficiency goes. The 44-hour week is worked in other centres; the London operative thinks he is just as much entitled to it, or more so, for reasons stated.

There are, in spite of differences of opinion, strong reasons why immediate steps ought to be taken to straighten out our differences. A Micawber attitude is unwise. No agreement will be worth the paper it is printed upon without the confidence of the operative is at the back of it. I would strongly urge an inquiry, and as a result submit terms to the rank and file. These could be alternative in character. The men are beginning to kick against the bureaucratic method of settling his working conditions; there must be some attempt made to place more direct responsibility upon him; this is one way of getting confidence.

INDUSTRIAL PEACE

AN article by Sir Robert Hadfield which recently appeared in *The Times* contained some tables showing the number of working days which had been lost in each year of this century by trade disputes, and, as we have so often done in these pages, he makes an estimate of the money loss in wages arising from this cause. Thus, from 1900 to 1923 he shows that 315 million working days were lost, representing an estimated sum of £157,000,000 in wages, and this sum represents the loss only to those directly involved in the dispute, and not to those indirectly involved.

It is always impossible to calculate the loss to the country as a whole from every dispute, therefore particular interest is given to the example which Sir R. Hadfield gives as to indirect loss suffered by those employed by his firm, and he states that in the years covered by the period 1919 to September this year the wages lost amounted to £730,000 from disputes in which his workpeople were not involved and from which they derived no benefit. It is significant to find such an experienced Trade Unionist as Mr. George N. Barnes in his recent work, "Industrial Conflict: The Way Out," also referring to the waste of productive energy through strikes and lockouts, and urging the necessity of peaceful methods for the settlement of disputes, and it is especially remarkable that he should advocate the making of voluntary associations of employers and employees legal entities which shall be sueable at law for inconsiderate action inimical to the public interest. We have always strongly deprecated the placing of bodies outside the law of the land in the manner that was first inaugurated by the Trade Disputes Act, 1906. That Act did not make combinations of employers or workmen legal entities, but placed them altogether outside the law as irresponsible bodies, and it is a totally anomalous position.

We may allude to one point not mentioned in the article we have referred to, but which we believe is inimical to industrial peace, viz., the Act which in 1913 gave political powers to Trade Unions. We all know how careful we are to avoid political discussions in any matter of ordinary life, as religious and political opinions are considered sacrosanct to the individual himself, and any interference with those opinions is justly resented and stirs up strong feeling at once.

The Trade Unions are industrial bodies having recognised and very important functions to perform in relation to industrial affairs, but by this Act they have been converted into political bodies, and all the heat engendered by politics has been imported into their system, often to the embarrassment of the leaders themselves.

One of the first steps to attaining industrial peace would, in our opinion, be to attempt to sever the industrial from the political aspect of industrial affairs, and to keep the two questions in watertight compartments, as far as is possible. The Labour Party are now in a position to organise any political caucus apart from the Trade Unions, and are fully entitled to do so, but the importation of politics into industrial questions on the face of it cannot make for peace, and we should wish to see those great industrial bodies, the Trade Unions, restored to their true functions: the regulation of industrial conditions of labour.

PAINTS AND VARNISHES*

THIS work claims to be written from a strictly practical standpoint. The author has had twenty years' experience in the industry, and it is safe to assume that during this period he has had many opportunities not only of obtaining a first-hand knowledge of the practical application of chemistry in connection with painters' and decorators' materials, but that he has been able to bring his theories into line with the industrial needs of users of such materials. The book is printed on excellent paper, in a good, clear type which is easily readable. The matter is contained in 267 pages, and is very carefully indexed. A full description of the methods of analysing raw materials and finished products is included. It thus provides a much-needed book of reference for all who find it necessary to know more about the materials they propose purchasing than can be ascertained by ordinary rule of thumb or experience. In many books of this type the chemical terms used are not easy for the layman to understand, but in this case the author has used the term by which the material is known in the works, and has given the chemical equivalent in addition, thus making it quite easy for anyone with but little previous knowledge to understand what is meant. Generally, his descriptive matter is very clear and lucid. The book is very conveniently arranged in three parts.

Part I deals with: Paints, their composition, properties and uses. It explains the machinery used in the manufacture of paint, white and coloured, enamels, anti-corrosive and anti-fouling paints, distempers and cold-water paints.

Part II deals with: Inorganic and organic pigments, their preparation and properties. A good general description of the method of manufacturing white lead is given; the Dutch, Chambers and Thenards, and other processes being explained. Lime oxide and lithopone receive considerable attention, and the newer white pigments, antimony oxide and titanium white, are described.

Part III deals with: Varnishes, lacquers, and japans. In the first chapter there is a general introduction to varnishes, &c., colophony, soft resins, balsam fossil gums, and raw materials receive a considerable amount of attention. In the two chapters following, drying oils, linseed oil, solvents and diluents are dealt with. The chapter devoted to varnish is invaluable. The final chapter is devoted to Brunswick blacks, japans, and stoving enamels.

The book is well illustrated and the diagrams are excellent.

*"The Chemistry of Paints, Pigments and Varnishes." By J. Gauld Bearn, D.Sc., A.T.C., F.C.S. (London: Ernest Benn, Ltd.). Price, 30s.

UNEMPLOYMENT INSURANCE

THE Umpire appointed under the Unemployment Insurance Acts has recently delivered a decision on a point under the Act of this year. The principal Act of 1920, by section 8 subsection (1), disqualified an insured contributor from receiving benefit during a stoppage of work due to a trade dispute; but section 4 subsection (1) of the Act of 1924 has amended this provision by providing that subsection (1) of section 8 of the principal Act shall not apply, amongst other cases, where the stoppage arising out of the dispute "is due to an employer acting in a manner so as to contravene the terms or provisions of any agreement existing between a group of employers where the stoppage takes place, or of a national agreement to either of which the employers and employees are parties."

The facts of the case appear to be as follows: On June 18 there was a stoppage of work in the South Liberty Colliery, Bristol, and the cause of the stoppage was a dispute as to whether or not the employers were bound to pay wages in accordance with a "National Wages Agreement" made between the Mining Association of Great Britain and the Miners' Federation at the end of May, but signed on June 18. The Bristol owners on the day previous to the signing of this agreement had resigned from membership of the Mining Association.

The Umpire found that the employers were members of the Bristol Colliery Owners Association, which Association is a constituent member of the Mining Association of Great Britain, and the National Agreement purported to be made by that Association on behalf of all its constituent Associations and the Bristol district was expressly included: That the Mining Association had power to make national agreements; and although it was provided that no local questions relating to wages could be taken out of the hands of a local association except at their request, as by the rules of the Association all questions were to be decided by vote, it must be inferred that the members were bound by such vote. Then, as to the question of resignation, the Umpire held that the Bristol owners were in fact members of the Mining Association when the agreement was made, and although they gave notice of resignation the day before the agreement was formally signed, that resignation had not become effective, as by the rules of the Association twelve months' notice was required. In the result the Umpire held that although the Bristol owners had protested that they would not be bound by any National Wages Agreement, yet by their membership of the Mining Association they were parties to the National Agreement, and the stoppage of work was due to an employer acting in contravention of a national agreement within the meaning of the section, and the men were entitled to unemployment insurance.

It will be seen that in these days of combines of both employers and employed the decision is of great importance.

The first part of section 4 subsection (1) of the Act of 1924 is as follows: "Subsection (1) of section 8 of the principal Act (which imposes a disqualification for the receipt of benefit during a stoppage of work) shall not apply in any case in which the insured contributor proves that he is not participating in, or financing or directly interested in, the trade dispute which caused the stoppage of work, and that he does not belong to a grade or class of workers, members of which are participating in, or financing or directly interested in, the dispute, or that the stoppage is due"—here follow the words quoted at the commencement of this note relating to contravention of agreements by employers, and it will be seen that where a breach of agreement takes place, then even those men participating in the dispute and possibly actually on strike can claim benefit. Where a deliberate direct breach of agreement has taken place between an employer and those directly employed by him, caused solely by the employer, it may appear reasonable that the men who suffer from the breach should not be deprived of benefit, but in these days when associations of employers and of men are formed on a large scale and agreements are framed comprising all sorts of conditions to be applied over a wide area, it is obvious questions must arise which may require adjustment, but it appears to offer an incentive to cease work if unemployment pay should be deemed to be secured to those participating in the dispute. It is thus as well to point out that this is not the case either under the section or this decision, as after the stoppage of work has taken place it still has to be proved by the insured contributor that the stoppage, in fact, was due to contravention of an agreement by the employer, that is to a breach of contract and faith on his part. All the same, the slightest variation of a contract would appear to make the section apply, and it may be doubted, therefore, if it will not tend to encourage a litigious rather than a peaceful spirit into industrial affairs.

ESTIMATING BUILDING COSTS *

THIS work on building costs in America is well printed, classified and illustrated. It contains chapters on most of the branches of the building trade, including excavations, concrete, ferro-concrete, stonework, joinery, structural steelwork, plumbing, plastering, electric lighting, heating, &c., and in each of these trades the costs of various materials and labours are clearly stated. It is interesting to notice that in New York a bricklayer will lay 1,000 common bricks on a 16 in. warehouse wall in 6¼ hours. American bricks are slightly smaller than the London stock brick. List prices of polished plate glass are given, and the discount of 75 per cent. is stated. It is a very long time ago since such discounts were allowed from plate glass tariffs in England.

In each chapter hints are given as to the best method of carrying out the work in each trade, which should prove useful. A considerable section of the book is taken up with information on "Appraisal of Buildings," and it is claimed that by the use of the data given it is easy to estimate the cost to reproduce almost any building constructed since 1890, of which the original cost is known, and thus many pages are filled with tables and examples of building costs, the reliability of which is claimed as an essential feature of the book.

Being a work of reference for Americans the money values are stated in dollars and the system of measuring differs from the usual London practice. The book is a veritable mine of information and can be recommended to contractors and their assistants, and all whose business it is to use such information.

* "Estimating Building Costs and Appraising Buildings." By Frank E. Barnes, C.E. (New York: McGraw Hill Publishing Co., Bouverie-street, E.C.) Price 25s.

NATIONAL FEDERATION OF MASTER PAINTERS AND DECORATORS

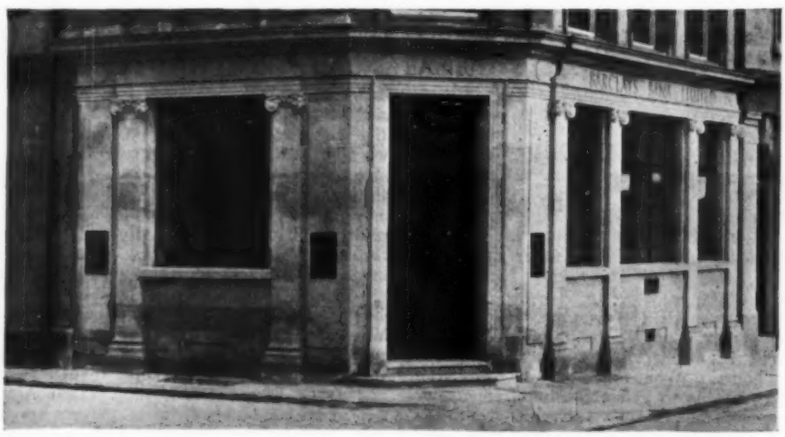
THE annual meeting of the National Federation of Master Painters and Decorators of England and Wales was held recently at Newcastle.

The President, Mr. J. W. Alder, in the course of his address, said the man who would be a decorator must spare no effort to make himself efficient and to enlarge his knowledge of the wonder of design and the mystery of colour, and if by reason of a prospering and growing business the opportunity of personal participation in craft processes was denied him, the need of sound knowledge of these processes was the greater, for he had to direct the work, and command the respect which was given by the men only to those whose craft knowledge merited it. This matter of personal efficiency should be put first, but alone it was not enough. There must follow a concern for the efficiency and the welfare of the whole craft, and that meant organisation.

There was, in the records of the early meetings of the old National Association of Master Painters, evidence of a wonderful pride of craft, a desire to safeguard good craftsmanship, and to do all that was possible to achieve higher standards. That was the foundation on which the organisation was built, and those who best knew the work that had since been done were the most convinced of the rightness of the view that the founders adopted.

He did not wish to imply that the commercial side of their calling was a negligible factor; the Federation cared not only for ideals and aspirations, but for the material welfare of its members. But the basis, the foundation of all that they had done and hoped to do, was pride in the craft itself, and in the efficiency with which they delighted to follow it. Before all he would put the work of education. Painting was a craft which when served faithfully by its followers, offered to the community a service of which they might well be proud, and as to which they had little need to keep silent.

The following officers were elected:—President, Mr. J. F. Butterworth, Manchester area; vice-president, Mr. H. S. Manning, Bedford; treasurer, Mr. Foster, Burnley; secretary, Mr. W. G. Sutherland.



Barclays Bank, Tavistock.

MR. A. FOSTER, Architect.

[The Beer stone on this building was worked, fixed, and cleaned down by the Beer Stone Co., Ltd., of Seaton. The builders were Messrs. J. Kersmill & Sons, of Tavistock.]

NEW BUILDINGS IN LONDON

Tavistock-square.—ADDITIONS.—Erection of new additions and the completion of the Theosophical College, Tavistock-square, W.C.1, as headquarters for the British Medical Association. 429, Strand, W.C. Sir Edwin Lutyens, R.A., is the architect, and Messrs. Ford & Walton, Ltd. the builders.

London.—A start will be made almost immediately upon the building of the new "Sargent" gallery at the Tate Galleries at Millbank, S.W The architects are Messrs. Romaine-Walker & Jenkins, of 6, Old Bond-street, W., who also designed the Gallery for Modern Foreign Art at Millbank, now being erected by Messrs. Holland & Hannen and Cubitts, Ltd. The entire cost is being defrayed by Sir Joseph Duveen. The contractors are Messrs. Holland & Hannen and Cubitts, Ltd., Gray's Inn-road, W.C.

London.—As the result of a limited competition, Mr. A. E. Lambert, a Nottingham architect, has been appointed to supervise the erection of the new memorial and primary halls at the Ealing Wesleyan Church. The building is planned to accommodate 400 to 500 persons and will include classrooms, cloakrooms, lavatories, &c.

Chiswick.—The Civil Services have purchased a site of about 20 acres on the banks of the Thames which they propose to lay out on modern lines as a sports ground. Five football pitches, 32 tennis courts, four cricket pitches, and a bowling green will be provided. Over 20 of the tennis courts will be of the hard court type. A pavilion, containing dressing-rooms, shower and plunge baths, a large hall, committee rooms, bar, lavatories, &c., and quarters for a resident groundsman have been designed by Mr. E. A. Stone, F.S.I.

Golder's Green.—CHURCH.—Work has recently been commenced on the completion of St. Michael's Church, Golder's Green. The cost will be about £10,000.

Regent-street.—A new building is being erected at 137–141, Regent-street, for Messrs. Wilson & Gill, by Messrs. Hall, Beddall & Co., Ltd., under the direction of the architects, Messrs. Yates, Cook & Darbyshire. The following are some of the sub-contractors: Steelwork, Messrs. Dorman, Long & Co., Ltd.; stone front, Messrs. The South Western Stone Co., Ltd.; fireproof floors, Messrs. Diespeker & Co., Ltd.; asphalte, Messrs. Lawford & Co.; heating and ventilation, Messrs. Mumford, Bailey & Preston, Ltd.; electric lighting, Messrs. Tredegars, Ltd.

Baker-street.—A building at 35, Baker-street, is being reconstructed by Messrs. Hall, Beddall & Co., Ltd., for the Union Assurance Society, Ltd., under the direction of Mr. Geo. T. Bullock. A new general office and manager's office have been formed on the ground floor, and new sanitary accommodation provided in the basement. The upper floors have been arranged as suites of offices, and the staircase has been remodelled to facilitate access to them.

Queen's-road.—Plans are in course of preparation for the rebuilding of the remaining portion of the old premises of William Whiteley, Ltd., in Queen's-road, W.2. The general design and elevation will be similar to the block already rebuilt. The section to be dealt with extends for about 200 ft. in Queen's-road and goes back about a similar distance. The new premises will be of six floors, with large display windows on the ground floor, spaced between columns of grey granite. The façade will be covered with Portland stone, whilst construction generally will be on a steel framework, with R.C. floors and a flat roof. The architect is Mr. W. Curtis Green, A.R.A., 5, Pickering-place, S.W.1.

Clapham Junction.—Plans have been prepared by Mr. Charles Living, junior, P.A.S.I., 75, The Grove, Stratford, E.15, for a new synagogue at Clapham Junction, S.W. The new edifice will be capable, including gallery, of accommodating some 300 persons. Brick construction is to be adopted with a roof of asbestos slates carried on steel trusses. The interior decorations will consist of plain distemper, on plaster. The woodwork, including floors, will be of oak.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Accrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Altrincham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ashton-under-Lyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barnsley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barrow-in-Furness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bath	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bedford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bishop Auckland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackburn	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackpool	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bolton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bournemouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bradford	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Brentwood	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bridgwater	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Brighton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bristol	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burnley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burton-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bury	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Cambridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cardiff	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chatham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chelmsford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chesterfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Crewe	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Darlington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Derby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Doncaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
E. Glam. (Mon. Vall.)	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Eastbourne	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Exeter	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Grantham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Grays	1/8½	1/8½	1/8½	1/8½	1/8½	1/8½	1/7½	1/3½
Grimsby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Great Yarmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Guildford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Halifax	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Harrogate	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hartlepools	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hereford	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Huddersfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hull	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ipswich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lancaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leicester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Lichfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Lincoln	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
London	1/8½	1/8½	1/8½	1/8½	1/8½	1/8½	1/7½	1/3½
Loughborough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Luton	1/5½	1/5½	/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Maidstone	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Manchester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Mansfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Merthyr Tydfil	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Middlesbrough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newcastle-on-Tyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newport, Mon.	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Nottingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Oldham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oxford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Plymouth	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Pontypridd	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Portsmouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Preston	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Reading	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Rochdale	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Rochester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Rugby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
St. Albans	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Helens	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Scarborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sheffield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Shrewsbury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Southampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southend-on-Sea	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
South Shields	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockton-on-Tees	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stoke-on-Trent	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stroud	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5	1/1½
Sunderland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swansea	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swindon	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Taunton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Torquay	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Tunbridge Wells	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wakefield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Warrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
West Bromwich	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Wigan	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Windsor	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wolverhampton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Worcester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
York	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½

(For rates of wages in the Building Trade in Scotland, see page 539.

NEW INVENTION

Concrete Blocks.

THE British Manufacturers' and Inventors' Guild, of 5, Cornwall-street, Birmingham, have sent in particulars of a new type of concrete block, known as "Maseyk's Ventilated Concrete Block."

In this system it is stated a system of horizontal and vertical ventilation combine to make the inner face of wall completely dampproof, equal to that obtained by cavity brick walls, with a saving of 25 per cent. in material.

The top face and one end of these blocks have a 3 in. by ¾ in. rebate along each side, to give a bond to the wall and act as a guide gauge for placing the next layer of blocks in position, and the arrises of these rebates act as a gauge for the thickness of mortar.

Unskilled men, it is stated, can master the laying of these blocks in a day under skilled supervision, or skilled men using 36 in. by 9 in. by 9 in., or 27 in. by 9 in. by 9 in., or 18 in. by 9 in. by 9 in., can build walls in half the time necessary with bricks.

The system of ventilation commences with inlets on the outer face at dampcourse level, the outlet being at top of wall wherever finished. No galvanised iron ties are required on any walls.

The blocks can be made by machines at the rate of from 80 to 100 blocks an hour in 36 in. by 9 in. by 4½ in.; other sizes proportionately.

Where unskilled labour is largely employed it is recommended that walls be built from dampcourse level to wall plates or gable tops without joists. The joists are then carried on, say, 6 in. by ¾ in. iron plates, built into wall angles as the job proceeds, at any desired height, on which trimmer joists, cut to clear the walls, may rest.

A CLAIM FOR BUILDING ALTERATIONS

IN the Shoreditch County Court recently, before Judge Cluer, a firm of jobbing builders sued Mr. Mark Rabinowitz, a wholesale cabinet manufacturer, to recover £50, being the balance of an account rendered and agreed upon in November, 1923. The plaintiff claimed that he had carried out the alterations at the premises of the defendant according to contract, and had rendered accounts amounting to £584 19s. He had received £530 on account, the last being in November for £20, when he agreed to take for the balance of £54 19s. the sum of £50, now sued for. On the other hand, the defendant pleaded that the payments had been made on the understanding that the plaintiffs would complete their work, but they had failed to do so, and it would cost £40 to carry out the uncompleted work; besides which he was asking for £20 as damage done to his cabinets and side boards through the rain coming through the defective roof, which the plaintiffs were supposed to have put in repair.

Mr. B. M. Goodman appeared as counsel for the defence, and the plaintiff in person.

In his evidence, the plaintiff said that he had no papers to produce in connection with the case, as he had been turned out of his house, his furniture was in store, and he could not get at them. When he took the £20 in November, it was agreed to settle his account finally for £50. In cross examination, he agreed that the receipt he gave said on it, "£55 balance: work to be finished." He went on to say that the £50 was agreed upon after that, and said it was a pity that that fact was not written in, but it was due to him not being a good scholar. The defendant had always complained about the work whenever he asked for any money. Since the arrangement of the £50, he had never been near the defendant except to ask for money, as he had done all the work there that he intended to do. It was true he had had a letter that the roof was leaking and was spoiling cabinets, but the fault was that it was a brick roof, which was spongy and allowed the water to get through. He also got a letter to say that if the work were not completed by January, defendant would have to get it done by someone else, but he never replied to it. This closed the plaintiff's case, and Mr. Claude William Dennis, manager to Messrs. Francis Dodd & Co., surveyors, gave evidence, and said that it would cost the defendant £52 8s. to complete the work which the plaintiffs had agreed upon originally.

Mr. Justice Cluer said if they, on the accounts sent in for £54 19s. completed the work themselves, they would have more than enough in hand to do it. It only left the matter of the £20 for the damaged cabinets and sideboards.

Mr. Goodman said they would not press for that, and Mr. Justice Cluer then gave judgment for the defendant, with costs.

RENT RESTRICTION

NOTICE OF INCREASE UNDER NEW ACT.

THE first case decided under the Rent Restrictions (Notices of Increase) Act, 1923, is now reported, Landrigan *v.* Simons (*Weekly Notes*, December 5), and is therefore of importance. The case arose in connection with premises in Francis-street, which were within the Rent Act, 1920, and of which the plaintiff was tenant and the defendant landlord.

In January, 1923, the landlord had served upon the tenant a notice to increase the rent, but no notice to determine the tenancy had been given. The tenant had apparently paid the increase, for on May 2 she took out a summons in the County Court claiming £26 18s. 11d., sums which she alleged had been paid in excess of rent. The County Court Judge had held that as no notice to quit had been given the increase in rent was not legally claimable by the landlord, on the authority of Kerr *v.* Bryde (1923 A.C. 16, *The Builder*, November 17, 1922), and he gave judgment for the plaintiff, but the landlord appealed, and on the appeal the following contentions were raised:—(1) That the Rent Restrictions (Notices of Increase) Act, 1923, was retrospective; (2) that the point of law as to the general efficacy of the notice having been raised at the trial it was open to the landlord to invoke in aid the new Act on appeal, although that Act was not passed at the time of the original hearing; (3) that the new Act was in the landlord's favour certainly as regards the rent up to December 1, and that with regard to the rent since that date the proviso at the end of section 1, subsection (1) (*a*) was not intended to cut down the effect of the general enactment.

It must be noticed before dealing with the judgment delivered by the Divisional Court that the case was heard in the County Court, June 5, 1923. The Rent Restrictions (Notices of Increase) Act was passed and came into force June 7; the appeal was heard November 22 and judgment given December 19. The Divisional Court held (1) the Act of 1923 was retrospective, (2) that although it was not passed at the time of the original hearing it was applicable on the appeal, following the case Stovin *v.* Fairbrass (1919, *Weekly Notes*, p. 217; *The Builder*, July 25, 1919), and (3) the Act validated increases of rent, although no notice to quit was given, by making notice of increase take the place of a notice to quit, but as regards the sums paid everything done up to December 1, 1922, was to remain undisturbed, and the position was crystallised as at that date. The Court is reported as having laid it down that the first part of section 1 of the Notices of Increase Act was not cut down by the last words of the proviso to that section beginning with the word "but."

To make the decision clear it is necessary to refer to the Statute itself. Section 1 subsection (1) commences "Where notice of intention to increase rent has, whether before or after the passing of this Act, been served upon a tenant in conformity with subsection (2) of section 3 of the principal Act" (the Act of 1920) "and a notice to terminate the tenancy was necessary in order to make such increase effective, the notice of intention to increase the rent shall have effect, and shall be deemed always to have had effect as if it were or had been also a notice to terminate the existing tenancy on the day immediately preceding the day as from which the increase is or was first to take effect, or on the earliest day thereafter on which, if it had been a notice to terminate the tenancy it would have been effective for that purpose, and in the latter case a notice of increase served before the passing of this Act shall be deemed to have had effect as if such earliest date had been specified in the notice as the date from which the increase was to take effect."

Before passing to the proviso we may point out that the wording of this part of the section clearly indicates an intention to make the Act retrospective in this connection, as has now been held in this case, and as we pointed out in our note to Michael *v.* Phillips (*The Builder*, March 30, 1923), a case affirmed on appeal, all the Acts have a retrospective effect so far at least as increases of rent are concerned.

Proviso (*a*) is as follows: "Nothing in this Act shall entitle a landlord after the passing of this Act to recover from a tenant, in respect of any period before December 1, 1922, the increase of rent made valid by this Act, or any sums which have been recovered from the landlord before that date by means of deductions from rent or otherwise, or any rent due before that date which has not been paid by reason of such deductions having been made therefrom; but section 14 subsection (1) of the principal Act shall not apply to an increase of rent made valid by this Act which was paid by, or recovered from, a tenant prior to December 1, 1922."

Subsection (1) of section 14 of the principal Act, here referred to, made any sum (whether paid before or after the passing of that Act) paid in respect of rent which was made irrecoverable by the landlord by that Act, or any Act repealed by it, recoverable by the tenant, and the effect of the proviso therefore appears to be that a "validated increase of rent" that is an increase of rent made valid by the Notices Act, 1923 [see section 1 subsection (2)], cannot be recovered by a landlord in respect of any period before December 1, 1922, or if paid by or recovered from the tenant before that date be recovered back by the tenant.

It may, however, be noticed that whereas the first part of the proviso and the latter part of the same apply to "validated increases," so far as the landlord is concerned, the middle portion goes further, "or any sums which have been recovered from the landlord before that date by means of deductions from rent or otherwise or *any rent* due before that date which has not been paid by reason of such deductions having been made therefrom," these words seem not limited to "validated increases."

In conclusion, we may point out that the facts of this case do not appear to have raised any question as to rent so far back as December 1, 1922, as in the short report of the case at present available it appears the increase was only demanded from January, 1924, and it appears to have been treated as a "validated increase," but the report does not state what the character of the tenancy was, and it therefore must be assumed that the notice of increase was such as validly to determine the tenancy in accordance with the provisions of section 1.

We may have to revert to this case when it is fully reported.

The Royal Naval Hospital, Plymouth.

An extension of the Royal Naval Hospital at Stonehouse, Plymouth, has just been commenced. It is estimated the work will cost over £30,000.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom a place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

OCTOBER 4.—**London, S.W. 1.**—DEMOLITION.—For demolition of temporary buildings at the War Office, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

OCTOBER 4.—**London, W.1.**—REPAIRS TO WALL.—Repairs to boundary wall abutting St. Mark's-road, at St. Marylebone Hospital, Notting Hill, W.10, for the Board of Guardians of St. Marylebone. Messrs. Constantine & Vernon, architects, 82, Mortimer-street, W.1. Deposit £1 Treasury Note.

OCTOBER 4.—**Renfrew.**—HOUSES.—For the various works in connection with the erection of 60 houses at Moorpark, for the T.C. Mr. Hamilton Neil, architect, 163, St. Vincent-street, Glasgow.

OCTOBER 6.—**Barnsley.**—PAINTING.—For painting the railings and gates to St. Mary's Churchyard. Borough Engineer, Fairfield House Offices, Barnsley.

OCTOBER 6.—**Cwmcarn.**—SCHOOL.—Erection of new infants' school at Cwmcarn, Mon, and alteration of the present school, for the Monmouthshire E.C. Mr. John Bain, F.R.I.B.A., County Hall, Newport.

OCTOBER 6.—**Dublin.**—PAINTING.—For painting work, &c., at Tuberculosis Hospital, Pigeon House-road, for the County Borough. Mr. J. J. Murphy, Town Clerk.

OCTOBER 6.—**Holmfirth.**—WALL.—For taking down and rebuilding of retaining and fence wall on the Greenfield and Shepley main road, for the U.D.C. Mr. Geo. Bray, Surveyor, Council Offices, Holmfirth.

OCTOBER 6.—**Lurgan.**—ALTERATIONS.—For additions and alterations to Lurgan College, for the Governors. Mr. Robert Lynn, M.R.I.A.I., architect, 14a, Ann-street, Belfast. Deposit £1 1s.

OCTOBER 6.—**Stretford.**—SCHOOL.—For the erection of a central school in Gorse Park, for the U.D.C. Mr. Percy Howard, A.R.I.B.A., Architect, 88, Mosley-street, Manchester. Deposit £1 1s.

OCTOBER 6.—**Tarleton.**—HOUSES.—Erection of four cottages in Coe-lane, Tarleton, for the Lancashire C.C. Mr. W. H. Schofield, A.M.I.C.E., County Surveyor and Bridgemaster, Preston.

OCTOBER 6.—**Thirsk.**—PAINTING.—For painting the whole of the outside wood and iron work of the buildings at the Hospital, Sutton-road. Mr. W. Swarbreck, Clerk, Thirsk. Deposit 10s. 6d.

OCTOBER 6.—**Thundersley.**—SCHOOL.—For extensions to Thundersley Council School, for the Essex C.C. County Architect, Old Court, Springfield, Chelmsford. Deposit £1 1s.

OCTOBER 6.—**Warrenpoint (Ireland).**—HOUSES.—For the erection of 10 workmen's dwellings, for the U.D.C. Mr. S. J. M'Avoy, M.R.I.A.I., 66, University-avenue, Belfast.

OCTOBER 7.—**Bradford.**—CONVERSION.—For the conversion of office premises into dwelling houses at Dick-lane, Thornbury, for the Corporation. Mr. N. L. Fleming, Town Clerk, Town Hall.

OCTOBER 7.—**Dunmow.**—FARM.—Erection of a set of farm premises at Puttocks Farm, Dunmow, for the Small Holdings Committee of the Essex C.C. Mr. Chas. Lock, P.A.S.I., County Land Agent, Chelmsford. Deposit £1 1s.

OCTOBER 7.—**Evesham.**—POST OFFICE.—For the erection of a P.O. at Evesham, Worcestershire, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

OCTOBER 7.—**Garston.**—SCHOOL.—For the erection of new Council school, Springwood Estate, for the Liverpool Corporation. Mr. W. Moon, Town Clerk, Municipal Buildings. Deposit £2 2s.

OCTOBER 7.—**Hendon, N.W.9.**—BUILDING.—Building new single wards at Colindale Hospital, Hendon, N.W.9, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

OCTOBER 7.—**Leeds.**—EXTENSIONS.—For the builders' work required in the extension of the Electricity Works, Whitehall-road, for the T.C. Mr. G. W. Atkinson, architect, 1, Mark-lane. Deposit £2 2s.

OCTOBER 7.—**Liverpool.**—RECONSTRUCTION.—For the demolition and reconstruction of premises, Nos. 131–139, Boundary-street. Mr. W. Moon, Town Clerk, Municipal Buildings.

OCTOBER 7.—**Morley.**—HOUSES.—Erection of 48 houses on the Middleton Road Housing Estate, for the T.C. Borough Engineer's Office, Town Hall, Morley. Deposit £2 2s.

OCTOBER 7.—**Nuneaton.**—BAKERY.—Erection of bakery buildings, for the Nuneaton Co-operative Society, Ltd. Mr. W. F. Edwards, architect, 1, Newhall-street, Birmingham. Deposit £1 1s.

OCTOBER 7.—**Whitstable.**—HOUSES.—For the erection of 12 houses, in blocks of four, in Hamilton-road, for the U.D.C. Mr. J. Dunn, Surveyor and Water Engineer, Council Offices. Deposit £1.

OCTOBER 8.—**Bath.**—POST OFFICE, &c.—For the erection of a P.O. and telephone exchange, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

OCTOBER 8.—**Blackpool.**—PAINTING.—For the outside painting of the Victoria Hospital. Mr. W. J. Cunliffe, Secretary, Victoria Hospital.

✱OCTOBER 8.—**Christchurch, Hants.**—BUILDING WORKS.—Works at Farmiloe House Institution, for the Christchurch Union:—(1) Alterations and building additions to the laundry, (2) alterations to old Female Infirmary, (3) provision of surgery &c., at the Cottage Homes, for the Guardians of the Christchurch Union. Mr. Percy C. Ford, Clerk to the Guardians, Fairmile House, Christchurch, Hants. Deposit £2 2s.

✱OCTOBER 8.—**Christchurch, Hants.**—EXTENSIONS AND ALTERATIONS.—Extensions and alterations in connection with the laundry machinery and equipment, for the Guardians of the Christchurch Union. The Guardians, Union Offices, Fairmile House, Christchurch, Hants. Deposit £2 2s.

OCTOBER 8.—**Greenwich, S.E.10.**—CONVENIENCE.—Construction of an underground convenience for both sexes at the foot of Blackheath Hill, Greenwich, for the Greenwich Metropolitan Borough Council. Borough Engineer's Department, Town Hall, Greenwich. Deposit £2 2s.

OCTOBER 8.—**Isle of Man.**—ELEMENTARY SCHOOL.—Erection of an elementary school providing accommodation for 500 children. Clerk to the Isle of Man Education Authority, Strand-street, Douglas. Deposit £1 1s.

OCTOBER 8.—**Nottingham.**—ADDITIONS.—For alterations and additions to premises, Nottingham-road and Zulu-road, New Basford. Mr. W. J. Board, Town Clerk. Deposit £1.

OCTOBER 8.—**Rushen (Isle of Man).**—SCHOOL.—Erection of an elementary school for 500 children, with extra rooms and a house for the caretaker, at Rushen, for the Isle of Man Education Authority. Mr. T. R. Lewin, Clerk to the Isle of Man Education Authority, Strand-street, Douglas. Deposit £1 1s.

✱OCTOBER 8.—**Woolwich, S.E.18.**—ADDITIONS.—Completion to the partially constructed additional story to receiving ward at the Woolwich Union, Plumstead High-street, S.E.18, for the Guardians of the Poor of the Woolwich Union. Messrs. Whincop & Channer, 47, Thomas-street, Woolwich, S.E.18.

OCTOBER 9.—**Bucknall.**—ADDITIONS.—For the erection of a two-ward block at the Infectious Diseases Hospital, for the Stoke-on-Trent T.C. Mr. E. B. Sharpley, Town Clerk.

OCTOBER 9.—**Farnworth, near Bolton.**—ALTERATIONS.—For alterations (to form a telephone exchange), for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

OCTOBER 9.—**Haslingden.**—HOUSES.—For the whole of the work required in the erection and completion of brick houses on the Syke Side Estate. Mr. W. Musgrove, Town Clerk, Municipal Offices.

OCTOBER 9.—**Near Chacewater.**—BUNGALOW.—For the erection of a bungalow. Mr. J. C. Mann, 15, King's-parade, Uxbridge-road, Southall, Middlesex.

OCTOBER 10.—**Drumcondra.**—SCHOOL.—For building a new national school at Crawford-avenue, for the Rev. —. Wall. Messrs. Ashlin & Coleman, architects, 7, Dawson-street, Dublin. Deposit £2 2s.

OCTOBER 10.—**Glamorgan.**—VARIOUS.—Pyle Cross, new mixed and infants' school, near the Cross Roads; Resolven, new girls' school and adaptation of old mixed department for boys; Cymmer (Port Talbot), new boys' school; Heolycyw council school, erection of new boundary wall. Mr. T. Mansel Franklen, Secretary of E.C., Glamorgan County Hall, Cardiff.

OCTOBER 10.—**Glasgow.**—PLUMBER AND SLATER WORK.—For plumber and slater work in connection with the erection of Mearnskirk Sanatorium, Mearns, Renfrewshire, for the T.C. Office of Public Works, 64, Cochrane-street, Glasgow. Deposit £5 5s.

OCTOBER 10.—**Liverpool.**—EXCAVATION.—Excavating and building foundations for the new tram works and car depot, Edge-lane. Mr. W. Moon, Town Clerk, Municipal Buildings. Deposit £3 3s.

✱OCTOBER 10.—**London, N.W.6.**—EMPLOYMENT BUREAU.—Erection of a juvenile employment bureau to adjoin the Pound-lane Schools, Willesden, for the Willesden District Council. Mr. F. Wilkinson, M.Inst.C.E., Engineer to the Council, Town Hall, Dyne-road, Kilburn, N.W.6.

OCTOBER 10.—**London, S.E.9.**—PAINTING.—For external painting, &c., at the Well Hall Estate, Eltham, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

OCTOBER 10.—**Queensbury.**—REPAIRS.—For the provision of a bath and lavatory, and for repairs, &c., at Queensbury Catherine Slack Council Schoolhouse. Mr. B. Leah, Education Office, Bingley.

OCTOBER 11.—**Bangor.**—ADDITIONS.—For the erection of laundry premises and disinfector house at the St. David's Hospital, Carnarvon-road, for the Bangor and Beaumaris Union. Mr. B. Evans, Clerk to the Guardians, Union Offices, St. David's Hospital.

OCTOBER 11.—**Chapel-en-le-Frith.**—PAINTING.—For outside painting at the Poor Law Institution, for the B.G. Mr. L. Jagger, Clerk to the Guardians, Union Offices.

OCTOBER 11.—**Crowland.**—RETAINING WALLS.—For the erection of a new bridge, retaining walls, &c., for the Holland C.C. Mr. Wm. A. Rogerson, County Surveyor, Sessions House, Boston.

✱OCTOBER 13.—**Croydon.**—COTTAGES.—Erection of 12 cottages at Beddington Sewage Farm. Beddington-lane, near Croydon, for the County Borough Council. Borough Engineer, Town Hall, Croydon. Deposit £2 2s.

OCTOBER 13.—**Croydon.**—HOUSES.—Erection of 48 houses (comprising 62 tenements) at Thornton-road, Thornton Heath, in two sections of 24 houses each, or as one tender for the whole, for the County Borough Council of Croydon. Borough Engineer, Town Hall, Croydon. Deposit £2 for each section, or £4 for both sections.

OCTOBER 13.—**London.**—STAIRWAYS.—For the construction of two stairways to the existing subway under the Victoria-embankment, near Westminster Bridge. Mr. J. Bird, Clerk of the L.C.C. Deposit £3.

✱OCTOBER 13.—**Shrewsbury.**—ENGINEERING WORK, ALTERATIONS, PAINTING, &c.—(1) Engineering work, including heating, hot and cold water supply work, re-setting two Cornish boilers, with all new pipework, and the provision of an electric lighting plant, and X-ray apparatus and laundry appliances, at the Berrington Hospital at Cross Houses, near Shrewsbury. (2) Alterations to the buildings at the Hospital. (3) Painting and decorating at the Hospital, for the Guardians of the Atcham Union. Messrs. Henry Lea & Son, consulting engineers, 1, Newhall-street, Birmingham, for quantities of engineering; and Mr. G. W. Deakin, architect, 22, Castle-street, Shrewsbury, for quantities for alterations, and for painting and decorating. Deposit £3 3s. for each set.

OCTOBER 14.—**Guernsey.**—HOUSES.—Erection of 40 houses in Collings-road, and 10 or 12 houses at Sausmarez Mill, St. Martin's, for the States Committee for Homes for Workers, States of Guernsey. States Office, Guernsey, or at the office of Mr. Sydney Newcombe, architect, Greve d'Azette, Jersey.

✱OCTOBER 14.—**London, E.2.**—FLOORING.—Laying of composite floors at the Children's Homes, High-road, Leytonstone, for the Bethnal Green Board of Guardians. Mr. C. Faulkner Jones, Clerk to the Guardians, Administrative Offices, Bishop's-road, Bethnal Green, E.2. any week day between the hours of 10 a.m. and 12 (noon), and 2 to 4 p.m., Saturdays excepted. Deposit £2.

✱OCTOBER 15.—**Aldershot.**—WORKS CONTRACT FOR REPAIRS AND MATERIALS.—Works contract from October 24, 1924, at the Blackdown and Deepcut Station. Commanding Royal Engineer, Royal Engineer Office, Marlborough Lines, North Aldershot, Hants.

OCTOBER 16.—**Brighton.**—HOUSES.—Erection of 11 houses in Hereford-street, Brighton, for the County Borough Council of Brighton. Borough Surveyor, Town Hall, Brighton. Deposit £1.

✱OCTOBER 16.—**London, S.W. 2.**—REPAIRS AND REDECORATION.—Repair and redecoration of (1) The Mortuary and Coroner's Court, High-street, Lambeth, S.E. 1, and (2) The Mortuary, Wanless-road, Loughborough Junction, S.E. 24, for the Lambeth Borough Council. Mr. Osmond Cattlin, Borough Engineer, Town Hall, Brixton-hill, S.W. 2.

OCTOBER 16.—**Warrington.**—HOUSES.—Erection and completion of 54 houses on the Reynolds-street site, for the Housing Committee of the County Borough of Warrington. Borough Engineer and Surveyor, Town Hall, Warrington. Deposit £2 2s.

OCTOBER 17.—**Trowbridge.**—HOUSES.—Erection of 20 houses in 10 pairs on the Rock Housing Estate, for the Trowbridge U.D.C. Mr. Walter W. Snallum, Church-street, Trowbridge.

OCTOBER 18.—**Clacton-on-Sea.**—HOUSES.—For the erection of 44 houses on the Croft Estate, for the U.D.C. Mr. Geo. T. Lewis, Clerk to the Council, Council Offices.

✱OCTOBER 21.—**London, S.W.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange in Battersea, London, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s. (Cheques payable to the Secretary.)

OCTOBER 22.—**Whittingham.**—VARIOUS.—Various work is required for the erection of sixteen cottages on a site near the Whittingham Mental Hospital, as follows: (1) Roads and sewers; (2) brick and stonework; (3) slating; (4) plastering; (5) woodwork; (6) plumbing. Mr. L. Cotman, Clerk to the Committee of Visitors. Deposit 10s. 6d. each.

✱OCTOBER 23.—**Rochford, Essex.**—ALTERATIONS.—Alterations, &c., to the Post Office, Rochford, Essex, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

OCTOBER 25.—**Usk.**—BUILDINGS, &c.—For the erection of buildings for the Agricultural Institute, comprising residential block, scholastic block, additions to dairy, and power house. Mr. C. Dauncey, Secretary, County Hall, Newport, Mon. Deposit £2 2s.

✱OCTOBER 27.—**London, S.E.18.**—LAVATORY ACCOMMODATION.—Erection of additional lavatory accommodation at the Guardians' Offices, 394, High-street, Lewisham, S.E.13, for the Guardians of the Poor of the Lewisham Union. Guardians' Offices, 394, High-street, Lewisham, S.E. Deposit £1 1s.

OCTOBER 27.—**Salcombe.**—ALTERATIONS.—For alterations, &c., at the Salcombe Hotel, Salcombe. Mr. E. H. A. Barron, architect, 11, The Crescent, Plymouth.

NO DATE.—**Heckmondwike.**—EXTENSION.—For the extension of offices for the Heckmondwike and District Co-operative Society, Ltd. Architect's Department, Co-operative Wholesale Society, Ltd., Balloon-street, Manchester. Deposit £1 1s.

NO DATE.—**Knaresboro'.**—EXTENSION.—For extension to Female Infirmary, for the B.G. Mr. J. Houfe, architect, Albert Chambers, Albert-street, Harrogate.

NO DATE.—**Llandudno.**—PAINTING.—For painting, plastering, &c., required to be executed at the Manchester and Salford Convalescent Home, Plas Mariandir, Llanrhos, Llandudno. Mr. F. Knowles, Secretary.

NO DATE.—**Swansea.**—HOUSE.—For the erection of a house on the Mumbles-road, Blackpill, Swansea, for Mrs. Nordhoff. Sir Charles T. Ruthen & Co., architects, Bank Chambers, Heathfield-street.

✱NO DATE.—**Trongate, Glasgow.**—STEELWORK.—Supply and erection of approximately 600 tons of steelwork required for picture playhouse proposed to be built in Renfield-street, Glasgow. Messrs. George Green, Ltd., 182, Trongate, Glasgow.

NO DATE.—**West Hunslet.**—PREMISES.—For new premises, for the West Hunslet Liberal Club. Messrs. F. W. Rhodes & Son, architects, Upper Wortley, Leeds.

FURNITURE, MATERIALS, etc.

OCTOBER 4.—**Gellygaer.**—MATERIALS.—Supply of paving, kerb and channel, concrete fence posts, drain pipes, cement and lime, cast-iron goods, ironmongery, &c., to the U.D.C. Mr. F. Read, Surveyor, Council Offices, Hengoed.

OCTOBER 6.—**Northwich.**—MATERIALS.—For the supply and delivery of about 650 tons of 10 in., 9 in. and 6 in. cast-iron pipes and specials. For laying about 6,700 lin. yards of 10 in., 9 in. and 6 in. water mains and works in connection therewith, including river and railway crossings, for the U.D.C. Mr. J. A. Cowley, Clerk of the Council, The Council House, Northwich. Deposit £3 3s. each.

OCTOBER 8.—**Buckhaven.**—ROOFING.—For the supply of corrugated asbestos cement roof sheeting for the erection of a compressor house, for the Buckhaven and Leven Gas Commissioners. Mr. R. Leslie, Clerk to the Gas Commissioners, Council Chambers.

OCTOBER 10.—**South Africa.**—PIPES.—For the supply and delivery of cast-iron pipes and specials, for H.M. Commissioners. Dept. of Overseas Trade, 35, Old Queen-street, S.W.1.

OCTOBER 11.—**Bootle.**—GRANITE.—For supplying (*a*) 105 lineal yds. of straight granite kerbs and 25 lineal yds. of circular granite kerbs, (*b*) 500 lineal yds. of straight granite channels and 50 lineal yds. of circular granite channels, (*c*) 250 lineal yds. of granite crossing stones, for the Corporation. Mr. J. Spencer Tumilty, Town Clerk.

OCTOBER 13.—**Edinburgh.**—CEMENT.—For the supply of Portland cement to the Tramways Depot, Shrubhill. Mr. A. Grierson, Town Clerk, City Chambers.

✱NO DATE.—**London, N.**—BALLAST.—Tenders required for 400 yds. of Thames ballast delivered to "Brasted," Hermitage-road, Harringay, N. 4.

ENGINEERING, IRON AND STEEL.

OCTOBER 4.—**Lancashire.**—BRIDGES.—For the construction of two bridges (masonry and ferro-concrete structures) over the River Irwell, at the boundary of Bury and Radcliffe, for the Lancashire C.C. Mr. W. H. Schofield, County Offices, Preston.

OCTOBER 4.—**Llangeinor.**—FENCING.—Erection of 190 lineal yards of unclimbable wrought-iron fencing at Reservoir at Llangeinor, for Mid-Glamorgan Water Board. Messrs. Thomas & Morgan & Partners, engineers, 23, Gelliwastad-road, Pontypridd. Deposit £2 2s.

OCTOBER 6.—**Dundee.**—ESPLANADE, &C.—For construction of a sea wall or bulwark extending to 3,200 ft., and 1,000 ft. of breakwater in rubble; also 1,300 ft. of 32 in. diameter outfall sewer, with reinforced concrete piles and groynes, for the T.C. Mr. George Baxter, City Engineer, 91, Commercial-street, Dundee.

OCTOBER 6.—**Manchester.**—BRIDGE WIDENING.—For the widening of Slade-lane Bridge over the London & North Eastern Railway, for the T.C. City Engineer's Office, Town Hall, Manchester. Deposit £2 2s.

OCTOBER 7.—**Leeds.**—STEELWORK.—For the structural steelwork required in the extension of the T.C. Electricity Works, Whitehall-road, for the T.C. Mr. G. W. Atkinson, architect, 1, Mark-lane, Leeds.

OCTOBER 8.—**Birmingham.**—BRIDGE.—Supply and erection of steel girders, &c., in connection with the reconstruction of the bridge over the Tame Valley Canal, Salford Bridge, Lichfield-road, Erdington, for the T.C. Mr. Herbert H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

OCTOBER 13.—**Aldershot, Hants.**—ARTIFICER'S WORK.—Maintenance Contracts, from October 15, 1924, at the Station hereafter mentioned in the South Aldershot Royal Engineer District of the Aldershot Command 1:—South Aldershot, including Ewshot and Crookham. Commanding Royal Engineer, R.E. Office, Headquarters, Stanhope Lines, Aldershot, Hants.

OCTOBER 14.—**Eastbourne.**—TIDAL FLAPS.—For the removal of existing tidal flaps, &c., in the valve chamber, Langney Point, and the supply and fixing of new tidal and sluice valves. Mr. Leslie Roseveare, Borough Engineer, The Town Hall. Deposit £1 1s.

OCTOBER 15.—**Bedlington.**—CULVERT.—Construction of a concrete culvert and the diversion of the Sleekburn under Sleekburn Viaduct, near Bedlington Station, for the London & North Eastern Railway Co. Chief Engineer, North Eastern Area, York.

OCTOBER 15.—**North Seaton.**—VIADUCT.—For the reconstruction of North Seaton Viaduct, for the London & North Eastern Railway Co. Office of the Chief Engineer North Eastern Area, York.

✱OCTOBER 24.—**London, E.C.4.**—LIFT.—Erection of a new lift at the G.P.O. (South), Queen Victoria-street, E.C.4, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

OCTOBER 28.—**Wellington, N.Z.**—BRIDGE SPANS.—For plate girder spans for Wairoa, Rangitaiki and Awakeri bridges, for N.Z. Public Works Board. Dept. of Overseas Trade, 35, Old Queen-street, S.W.1.

OCTOBER 31.—**Beaufort West (Cape Province).**—POWER STATION.—Electric power station plant, for the T.C. Department of Overseas Trade (Room 52).

NOVEMBER 3.—**Sydney, N.S.W.**—BRIDGE SPANS.—For metal work for superstructure of bridge at Tom Ugly's Point, for Department of Public Works, Sydney. Dept. of Overseas Trade, 35, Old Queen-street, S.W.1.

NOVEMBER 20.—**Chile.**—HARBOUR WORKS.—**For harbour works in the port of Lebu. Chilean Legation, 22, Grosvenor-square, W.1.**

DECEMBER 31.—**Hamilton.**—BRIDGE.—Erection of Clyde Bridge, Hamilton, for the Joint Committee of the County Council of the County of Lanark, Town Council of the Burgh of Hamilton, and Town Council of the Burgh of Motherwell and Wishaw. Messrs. Formans & M'Call, C.E., 160 Hope-street, Glasgow. Deposit £1 1s.

ROAD, SANITARY, AND WATER WORKS.

OCTOBER 4.—**Chapel-en-le-Frith.**—SEWER.—Construction of detritus tanks and other work in the alteration and extension of sewage outfall works, for the R.D.C. Messrs. Brady & Partington, engineers, Market-street, Chapel-en-le-Frith. Deposit £5.

OCTOBER 4.—**Chester.**—SEWER.—Construction of a surface water outfall sewer in concrete tubes and cast-iron pipes, for the T.C. Mr. Charles Greenwood, Assoc.M.I.C.E., City Engineer and Surveyor, Town Hall, Chester. Deposit £1 1s.

OCTOBER 4.—**Honiton.**—BRIDGE.—For taking down existing stone bridge and constructing a reinforced concrete bridge on the Kahn Bar System of the Trussed Concrete Steel Co., Ltd.; also forming a new road over the whole length of the bridge, for the T.C. Mr. J. W. Jones, Borough Surveyor, Honiton. Deposit £1 1s.

OCTOBER 6.—**Beckenham.**—ROADS.—For the widening of Upper Elmers End-road, for the U.D.C. Mr. J. A. Angell, Surveyor, Beckenham. Deposit £2.

OCTOBER 6.—**Carlisle.**—ROADS.—For street works required to be done in making-up Lismore-place. Mr. Henry C. Marks, City Engineer, 18, Fisher-street. Deposit 10s.

OCTOBER 6.—**Hemsworth.**—SANITARY.—For the conversion of certain existing privies and ashpits, &c., into 18 w.c.s, at Grimethorpe, for the R.D.C. Mr. W. T. Lynam, Surveyor, Council Offices, 29, Rotherham-road, Hemsworth.

OCTOBER 6.—**Hornchurch and Rainham.**—SEWERS.—Construction of sewers, for Romford R.D.C. Mr. W. J. Grant, Surveyor to the Council, 10A, South-street, Romford.

OCTOBER 6.—**Lancashire.**—ROAD IMPROVEMENT AND ERECTION OF COTTAGES.—Improvement of Preston-Liverpool main road and erection of four cottages in Coe-lane, Tarleton, for the Main Roads and Bridges Committee of the Lancashire County Council. County Surveyor's Office, County Offices, Preston.

OCTOBER 6.—**London.**—PAVING.—For paving Marham-gardens, Lyminge-gardens, and Collamore-avenue, Wandsworth; Spalding-road (part), Furzedown-drive (part), and Hepworth-road, Streatham; Longstaff-road (part), and Longstaff-crescent, Southfield, for the Wandsworth B.C. Mr. D. A. Nicholl, Town Clerk, Council House. Deposit £1 1s.

OCTOBER 6.—**London, N.W.3.**—REMOVAL OF REFUSE.—Daily removal and disposal of pulverised house refuse from the Dust Disposal Dept., adjoining the Metropolitan Railway, West Hampstead Station, N.W.6, for one year or for three years, from April 1, 1925. Mr. Oliver E. Winter, M.Inst.C.E., Borough Engineer, Town Hall, Haverstock-hill, N.W.3.

OCTOBER 6.—**Manchester.**—PAVING.—For the draining, paving, with concrete, flagging with artificial flags, &c., Collingwood-road, Rusholme, from Slade-lane, for a distance of 241 yds. in a westerly direction, for the T.C. Mr. P. M. Heath, Town Clerk, Town Hall. Deposit £1 1s.

OCTOBER 6.—**Northwich.**—MAINS.—For laying about 6,700 lineal yds. of 10 in., 9 in., and 6 in. water mains and works in connection therewith, including river and railway crossings. Mr. J. Arthur Cowley, Clerk of the Council, The Council House, Northwich. Deposit £3 3s.

OCTOBER 6.—**Warrenpoint (North Ireland).**—SEWERAGE.—For the improvement of the sewerage, for the U.D.C. Mr. S. J. M'Avoy, M.R.I.A.I., 66, University-avenue, Belfast.

OCTOBER 7.—**Dudley.**—ROAD.—For the construction of a road at Blowers Green, Dudley, for the G.W.R. Mr. A. E. Bolter, Secretary, Paddington Station, W.

OCTOBER 7.—**Gellygaer.**—ROADS AND SEWERS.—New roads and sewers on the Heolddu housing site, Bargoed, for the Gellygaer U.D.C. The work includes excavation, filling, ballasting, metalling, kerb and channel, footpaths, grass verges and tree planting, and drainage, &c. Mr. P. Jones-Williams, Architect to the Council. Deposit £2 2s.

OCTOBER 7.—**Hendon, N.W.9.**—ROADS.—Laying tar macadam to roads, Colindale Hospital, Hendon, N.W. 9, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

OCTOBER 8.—**Walton-on-the-Naze.**—ROAD.—For the completion of a new main road, from Walton-on-the-Naze to Frinton-on-Sea, for the U.D.C. Mr. S. Nicholson, Clerk to the Council, Town Hall, Walton-on-the-Naze. Deposit £1 1s.

OCTOBER 10.—**Oxford.**—WIDENING.—For widening foundation, drainage and contingent works, on a section of the London-Oxford-road, approximately 3¼ miles in length. Mr. A. E. Cockerton, County Surveyor, 8, New-road, Oxford. Deposit £10.

OCTOBER 11.—**Birmingham.**—SEWER.—For the construction of about 32 yds. egg-shaped brick and concrete sewer, and 919 yds. stoneware pipe sewers. Mr. H. H. Humphries, City Engineer and Surveyor, The Council House. Deposit £2.

OCTOBER 11.—**Hemsworth.**—CONVERSION.—For conversion of six existing privies and ashpits, and erection of six new w.c.'s at Bond-street, Kinsley, near Pontefract. Mr. A. Wright, Clerk to the Council, Council Offices, Barnsley-road, Hemsworth, near Pontefract.

OCTOBER 13.—**Abertysswg.**—SEWERS.—For laying 1,090 yds. of 6 in. and 688 yds. of 9 in. storm water sewer, &c., at Abertysswg, for the Rhymney U.D.C. Mr. W. H. Trump, Clerk, 57, High-street, Rhymney.

OCTOBER 13.—**Barnes.**—ROAD AND SEWER.—For the construction and drainage of an extension to Hertford-avenue, East Sheen, for the U.D.C. Mr. G. Bruce Tomes, Surveyor to the Council, The Council House, High-street, Mortlake.

OCTOBER 13.—**Coseley.**—SEWERAGE.—Stoneware and cast-iron sewers, manholes, pumping station, and other works at Princes End, for the U.D.C. Messrs. Berrington, Son, & Watney, engineers, Prudential Chambers, Lichfield-street, Wolverhampton. Deposit £5 5s.

OCTOBER 13.—**Hebburn.**—HOUSES.—For the erection of 37 houses on the Hedgeley-road site. Mr. T. Stuart, Clerk to the Council, 2, Coquet-street.

OCTOBER 14.—**Southall-Norwood.**—CARRIAGEWAYS.—For resurfacing carriageways in various streets. Mr. J. B. Thomson, Assoc.M.Inst.C.E., Engineer and Surveyor to the Council, Town Hall, Southall.

OCTOBER 15.—**Chorley.**—HOUSES.—For the erection of 60 houses on the Highfield Estate, for the Borough. Mr. Jno. Mills, Town Clerk. Deposit £2 2s.

✱OCTOBER 15.—**Hove.**—WOOD PAVING.—Providing and laying wood paving in Goldstone-street, between Clarendon Villas and the south side of the railway bridge (about 4,370 yds. super.) for the Borough Council of Hove. Borough Surveyor, Town Hall, Hove.

OCTOBER 15.—**Ilkley.**—HOUSES.—For erection of 24 houses on a site abutting upon Leeds-road, for the U.D.C. Mr. F. S. Eckersley, Clerk of the Council, Town Hall.

OCTOBER 16.—**Ely.**—HOUSES.—For the erection of 94 houses, for the Cardiff City Council. Mr. C. G. Brown, Town Clerk, City Hall, Cardiff. Deposit £2 2s.

OCTOBER 17.—**Southampton.**—MAINS.—For laying 2,000 yds. of 36 in. and 6,250 yds of 33 in. cast-iron water mains. Mr. R. R. Linthorne, Town Clerk. Deposit £3 3s.

OCTOBER 20.—**Burntisland.**—RESERVOIR.—For the construction of a storage reservoir, &c., on a site near Stenhouse Farm. Messrs. Brown & Gilmour, Joint Town Clerks, Town Clerks' Office.

OCTOBER 20.—**Fermanagh.**—ROADS.—For construction of roads, for the C.C. Mr. J. P. Burkett, County Surveyor, Enniskillen. Deposit £5.

OCTOBER 20.—**Greenford.**—DRAINAGE.—For the extension of the main drainage system, comprising about six miles of 7 in., 9 in., and 12 in. sewers, manholes, &c. Mr. A. Lloyd Jones, Clerk to the Council, New Broadway Chambers, New Broadway, Ealing. Deposit £3 3s.

OCTOBER 22.—**Great Ouseburn.**—ADDITIONS.—For alterations and additions to Great Ouseburn council school: (*a*) Excavator, Mason, and Bricklayer; (*b*) Carpenter and Joiner; (*c*) Slater; (*d*) Plumber; (*e*) Plasterer; (*f*) Painter, for the West Riding E.C. The Education Department, County Hall, Wakefield.

OCTOBER 25.—**Plygyrhiw.**—ROAD.—For the construction of two sections of new road at Plygyrhiw and Penlan, near Llandyssul, for the Carmarthenshire C.C. Mr. R. W. Jones, County Surveyor, County Offices Carmarthen. Deposit £3 3s.

Competitions.

(*See Competition News, page 506.*)

Auction Sales, Tenders, etc.

✱OCTOBER 7.—**London, S.W.**—Messrs. Veryard & Yates will sell, without reserve, at 255, Clapham-road, S.W., timber, fittings and building materials, from demolition of aircraft buildings, Regent's Park. Auctioneers, 365, Norwood-road, S.E.27.

OCTOBER 7.—**Stockwell.**—Messrs. Joseph Hibbard & Sons will sell, without reserve, by order of the owner, upon the premises, Lansdowne Works, Lansdowne-road (near "The Swan," Stockwell), the stock and plant of builder's and contractor's, comprising timber, saw mill machinery, lorry, delivery van; the valuable freehold premises to be sold. Auctioneers, 15, Newington-green, Islington, London, N. 16.

OCTOBER 8.—**Surrey.**—Mr. C. E. Clark will sell, without reserve, at Eastwick Farm Buildings, Lower-road, Great Bookham, Surrey, timbers and builders' effects. Auctioneers, Beddington House, Beddington, near Croydon.

✱OCTOBER 9.—**London, E.C.**—Mr. Joseph Stower will sell, at Winchester House, Old Broad-street, E.C., freehold property containing the important area of 74,700 ft., or about 1¾ acres, on the north side of the main road between Bow Station and Bow Bridge, formerly St. Catherine's Convent. Auctioneer, 43, Chancery-lane, London, W.C.2.

✱OCTOBER 11.—**London, E.C.**—Messrs. C. C. & T. Moore will sell, at the London Auction Mart, a freehold and copyhold estate at Enfield, Middlesex. Auctioneers, 7, Leadenhall-street, E.C. 3.

OCTOBER 16.—**London, E.C.**—Messrs. C. C. & T. Moore will sell, at the London Auction Mart, a freehold and copyhold estate at Enfield. Auctioneers, 7, Leadenhall-street, E.C.3.

✱OCTOBER 21 AND 22.—**Swindon, Wilts.**—Mr. F. H. Clark will sell, without reserve, at the Central Stores Depot No. 18, Swindon, Wilts. (near Swindon Station, G.W. Railway), final clearance sale of timber buildings and building materials. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

Public Appointments.

✱OCTOBER 6.—**London, W.1.**—Full-time Teacher required immediately for the Department of Building and Architecture at the Polytechnic, Regent-street, W.1. Apply for forms from the Director of Education.

OCTOBER 8.—**London, S.W. 17.**—BUILDING INSPECTOR.—Building Inspector required in the Borough Engineer's Dept., by the Metropolitan Borough Council of Wandsworth. Mr. Ernest J. Elford, 215, Balham High-road, S.W. 17.

✱OCTOBER 8.—**Watford.**—Assistant in the Borough Engineer's Department required by the Borough Council of Watford. Mr. D. Waterhouse, Borough Engineer, Municipal Offices, 14, High-street, Watford.

✱OCTOBER 9.—**Smethwick.**—Architect to assist in the preparation of the Council's Housing Schemes, and to undertake other architectural work as may be required by the Smethwick County Borough Council. Mr. Frank Chapman, Town Clerk, Council House, Smethwick.

OCTOBER 10.—**Scarborough.**—Clerk of Works, to act under the direction of the Borough Engineer, for the various buildings and works carried out by the Borough Council of Scarborough. Mr. Harry W. Smith, A.M.I.C.E., Borough Engineer, accompanied by copies of not more than three recent testimonials.

✱OCTOBER 13.—**Greenwich, S.E.10.**—Office Clerk required in the Borough Engineer's Department by the Metropolitan Borough Council of Greenwich. Mr. Frederick J. Simpson, Town Clerk, Town Hall, Greenwich-road, S.E.10.

OCTOBER 14.—**Auckland, New Zealand.**—Professor of Architecture required by Registrar, Auckland University College, Auckland. London Agent of the University of New Zealand, Mr. J. W. Joynt, M.A., 88, Gower-street, W.C.1.

✱NO DATE.—**Edinburgh.**—Foreman of Works required for temporary service at Edinburgh. C.R.E., Lowlands District, 29, Rutland-square, Edinburgh.

✱NO DATE.—**Gold Coast.**—FOREMAN OF WORKS.—Foreman of Works required for the Public Works Department, Gold Coast, for two tours of twelve to eighteen months' service, with possible extension. Crown Agents for the Colonies, 4, Millbank, Westminster, S.W. 1, quoting clearly at the head of letter M-13035.

✱NO DATE.—**London, N.7.**—Teacher of Brickwork required at once for two evenings a week at the Northern Polytechnic Institute, Holloway, London, N.7. Applications to be sent to the Clerk to the Governors.

✱NO DATE.—**London, S.E.1.**—Architectural Assistants required for temporary engagements in the Architect's Department of the London County Council. Architect to the Council, County Hall, Westminster Bridge, S.E.1.

BUILDING EDUCATION IN LANCASHIRE & CHESHIRE

A MEETING of the Lancashire and Cheshire Building Trades Teachers and others interested will be held on October 18, at 2 p.m., at the Manchester College of Technology, under the chairmanship of Mr. D. W. Steele, of Wigan.

A report will be given on the work done by a joint committee which is composed of (*a*) members of the Manchester Branch of the Institute of Builders, and (*b*) Building Trades Teachers. This joint committee was formed after a conference between the Manchester Branch of the Institute of Builders and Building Teachers engaged in the various Technical Schools of Lancashire and Cheshire, held in Manchester on October 13, 1923.

Encouraging progress has been made as a result of the meetings held, and the friendly relationship now established should, with a continuance of effort, produce beneficial developments for all sections of the building industry.

The following is the agenda for the meeting :—(1) Report of teachers' representatives on joint committee appointed to meet the Institute of Builders. Mr. E. M. Pearson, Preston. (2) Building Examinations and the necessity for national certificates. Discussion introduced by Mr. J. W. Riley, Rochdale. (3) Training for higher positions in the building industry. Discussion introduced by Mr. F. E. Drury, Manchester. (4) The introduction of trade courses. Discussion introduced by Mr. W. F. Anderson, Bolton. (5) Any other business.

All principals, teachers, employers, employees and others interested in technical education and training for the building industry are invited to attend. Correspondence to Mr. W. F. Anderson, Technical School, Bolton.

Drury-lane Theatre.

The sign of the steady trend of the public towards the cinema is seen in the conversion of many of the theatres into picture houses, and the far-sighted management of Drury-lane Theatre, realising this, has not been left behind in the march. It has set before its public a picture of the Arabian Nights par excellence. The story is full of thrills and adventure, with Douglas Fairbanks in the title role; and, judging by the long queues which are seen each day waiting at the box office, it looks likely that the "Lane" will draw all cinema goers to its spacious and comfortable house—not once only, but many times, where "The Thief of Bagdad" may be seen twice daily.

BRITISH COMMERCIAL GAS ASSOCIATION.

Dr. C. W. Saleeby lectured last Monday before the members of the British Commercial Gas Association, at the Town Hall, Liverpool.

In the course of his remarks, he said the secret of the power of light was that it exalted the self-defending powers of the blood. They could not expect the results of true sunlight by sitting behind a window. A substitute for window glass was needed in hospitals and other places where children were cared for. Quartz would serve the purpose, but it would be extremely expensive. It was time they restored the light of day to their cities. He advocated the school in the sun, for normal as well as ailing children. A recognition of the value of sunlight and fresh air was the flight of hospitals from the cities to the country. Several London hospitals were moving in that direction, and Sheffield, "a smoke cursed city," had a scheme to transfer its four hospitals into the country, a park having been bought for the purpose. The result of the abolition of coal smoke in New York was that between 1905 and 1919, pulmonary tuberculosis was reduced one-half, and there had since been an even greater fall.

On Tuesday, Mr. H. Wade Deacon delivered his presidential address. In the course of his remarks, he said in Liverpool, though they had some tall chimneys which were not blameless, yet it was true to say that, in the bulk, the domestic hearths were the greatest sinners. It was only necessary to think for a moment of what St. George's Hall, the Art Gallery, the Town Hall, the Dock Offices, to name only a few of their chief architectural attractions, would look like to-day if they had not been blackened and disfigured by the smoke from those open domestic fires to which they were accustomed. Let them think of the sad change that must occur in the colour of the stonework of their new cathedral in the course of only a few years, not to mention the more serious question of decay, if they continued to employ raw coal in their fireplaces.

In England, they had not the advantage of a great supply of water power possessed by some of their competitors in other countries, and the consideration of the possibility of obtaining a quantity of such power by damming the Severn was only now entering upon its early stages. As they had no oil wells, the one great source of power in their own land was—for the present, whatever the future might bring—coal; and as their stores of coal were being used up rapidly, it was necessary, in the national interests, that the utmost possible use be made of the coal they had. The vital importance of this matter was a subject which the gas industry would have to lay, with all the force it could command, before any Government which considered the question of the power resources of this country. The important point to bring constantly and plainly to the notice of all who were considering power schemes was that the term "power" must be restricted to the limited meaning of "motive power," and not be used to include the provision and use of heat, as such, and that the problem of coal conservation and utilisation must be considered as comprising two separate main considerations: (1) The economic utilisation of coal as a source of smokeless, labour-saving motive power; and (2) the economic utilisation of coal as a source of smokeless, labour-saving fuel. While the answer to the one might be largely—it was by no means wholly—"electricity," the answer to the second was almost entirely "gas and coke."

In conclusion, Mr. Deacon said not only existing conditions, but any conceivable conditions, must involve conflicting interests, and, so long as there were conflicting interests, there must always be the possibliity of strife. The great object of reasonable men was to remove, as far as they could, the causes which led to such violent and really anti-social acts as strikes and lock-outs. Much might be done, he thought, by trying to understand each other's point of view, in spite of difficulties which often undoubtedly existed, and by deliberately cultivating an attitude of readiness to believe in each other's honesty and good will. It was because he believed that co-partnership helped to form that attitude that he was a firm supporter of it wherever it could be applied.

PATENTS

APPLICATIONS PUBLISHED.*

217,654.—T. G. Allen: Systems of raising liquids.

217,658.—F. Jordan and F. Andrew: Kitchen table.

217,664.—D. H. Remfry: Construction of bridges.

217,669.—British and Foreign Industrials, Ltd., and J. G. Nash: Kitchen and similar tables.

217,692.—A. Rowlands: Kitchen ranges.

217,713.—E. Lumb: Building blocks.

217,718.—D. J. Munro: Construction of silos.

217,759.—H. K. Bromhead: Balanced window sashes.

217,791.—C. H. Harrison: Manufacture of reconstructed stone.

217,802.—F. R. R. J. Pearce: Ventilators for rooms.

217,812.—J. H. Delaney: Production of vermiculated appearance in artificial stone and like building materials.

217,813.—O. J. Looney: Locks.

193,062.—Jones & Laughlin Steele Corporation: Metallic structural elements.

218,720.—J. Hodson: Manufacture of basic bricks, furnace linings and retorts.

218,752.—J. R. Torrance, W. G. Hamblin and Torrance & Sons, Ltd.: Adjusting device for the rolls of grinding, crushing, pulverising, and other machinery.

218,760.—T. Debenham: Manufacture of concrete pipes.

218,764.—G. Meroni: Wooden furniture.

218,785.—R. Reinisch: Office desks.

218,810.—M. Haramiishi: Ferro-concrete walls.

218,819.—C. F. Hyde and S. Knott: Roads, floors, and like surfaces.

215,301.—C. T. Weymann: Apparatus for operating vertically-sliding windows.

218,858.—J. H. James: Latches for doors.

218,867.—L. Lombardi: Central heating of buildings.

218,874.—Armstrong Siddeley Motors, Ltd., and J. D. Siddeley: Manufacture of plywood.

206,480.—J. Deny: Folding seats.

218,876.—R. Hickton and W. Bagguley: Brick-making machines.

218,933.—M. J. Adams: Fire-places.

211,478.—Anaconda Sales Co.: Process for manufacturing roofing elements by electrolysis.

218,958.—G. Crowther: Supports for drilling braces and scaffolding.

217,947.—L. J. Hancock and T. R. Hancock: Heating apparatus.

217,949.—P. E. Sabine: Sound-absorbing plaster.

217,970.—P. Dumont: Lime-kilns.

218,015.—Benham & Sons, Ltd., and C. R. Allensby: Radiators for heating buildings.

218,027.—J. A. Davenport: Reinforced concrete beam construction.

218,042.—H. Landmark: Manufacture of jointless floorings.

218,060.—H. T. Tallack: Surveyors' levels.

218,075.—E. B. Praceiq: Preparation of pulverulent fuels for the purpose of converting their ashes into hydraulic cements.

218,093.—E. Debongnie: Arched roofs.

200,519.—R. Faure and G. Bourrelly: Heating apparatus.

205,053.—M. Nola: Metallic joints for composite structures.

218,121.—M. Lombardi: Radiators for heating buildings.

218,127.—J. U. A. Ohlsen: Process for producing impermeable, strong, and acid-proof tubes, bricks, and other articles from diatomic earth.

* **All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.**

PROPOSED NEW BUILDINGS & OTHER WORKS *

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

ADWICK.—The Council has decided to build 300 more houses.—The Colliery Company are providing another 300.

ALTRINCHAM.—The Board of Management of the Altrincham Hospital are proposing to install a new X-ray department in their institution, estimated to cost £3,000.

ASHBURTON.—Steps are to be taken for the erection of a new head master's house at the Grammar School. The Devon County Architect is to assist the governors by the preparation of plans and estimates.

ASHTEAD.—Plans approved by the Epsom R.D.C.: House off Leatherhead-road, for Mrs. M. B. Jackson; bungalow, Links-road, Mr. W. Brown; house, Warren Estate, Mr. O. J. Humbert; house, Harriotts-lane, Mr. H. B. Hibbert; house, corner of Agates-lane and Barnett Wood-lane, Messrs. Paterson & Moyle; house, Harriotts-lane, Mrs. F. Lawson.—The Clerk was given power to deal with the acquisition of land in Barnett Wood-lane, where houses are being erected by Messrs. Paterson & Moyle, in order to widen road.—The Council agreed to steps being taken to acquire land to widen Ottways-lane between The Orchard and Whitehouse Farm.—The Council agreed to a larger drain pipe being laid to prevent further damage to cottages by surface water from Farm-lane.—Land has been purchased in Barnett Wood-lane for housing.

ASHTON-IN-MAKERFIELD.—The D.C. have under consideration the question of taking over the Old House site on the assisted housing scheme on terms to be arranged, or the disposal of the site for the erection of houses by private enterprise.

ASHTON-UNDER-LYNE.—The Sites and Buildings Sub-Committee of the E.C. has resolved to recommend to the T.C. that an application be made to the M.H. for power to borrow £8,080 for the purchase and alteration of Trafalgar-square School.

BANSTEAD.—The Epsom R.D.C. are to negotiate for land for widening Salisbury Court-road.

BARNSTAPLE.—It is proposed by the Devon C.C. to erect a pavilion at the Hawley Sanatorium, at a cost of about £2,000.

BEDWELLTY.—The U.D.C. propose building 16 houses at Argoed and 14 at Aberbargoed. The work is to be carried out by the Surveyor at a cost of £8,880 and £6,810, respectively.—The Council are to provide a cemetery. The Surveyor submitted an amended scheme for road widening at Bedwellty at an estimated cost of £300.

BIRMINGHAM.—The Birmingham Public Works Committee propose to erect 1,204 houses. The majority of the new dwellings will be of concrete, and will be erected on various sites at Billesley, Washwood Heath, Belcher's-lane, and Shortheath-road, Erdington.

BLACKPOOL.—Application has been made to the T.C. for the sale of a plot of land at Woodhouse Farm, Carleton, for the erection of a church.

BOLTON.—The Corporation is pushing forward with its scheme to extend the Town Hall building nearly to double its present size, and, in addition, erect new buildings in the shape of a crescent beyond the extension. It will cost over a million pounds, and as most of the property surrounding the Town Hall has now been acquired by the Corporation a start should be made early next year. The plans are being prepared by Messrs. Bradshaw, Gass & Hope, architects, 19, Silverwell-street, Bolton.—The Housing Committee have approved plans for another 55 subsidy houses in various parts of the Borough.—The E.C. has approved arrangements for taking over Lostock Industrial School to make it an open air school.

BOWLAND.—Plans are being prepared by the surveyor to the West Riding Education Authority for repairs and alterations to Grindleton-lane Ends School.

BRAINTREE.—The Housing Committee has received the sanction of the M.H. for the erection of cottages at Black Notley, Rayne, and Cressing. The Council decided to apply to the M.H. for sanction to the erection of a further 22 houses—eight at White Notley, six at Fairsted, and eight at Shalford—and also for the necessary loan.

BRIDLINGTON.—Plans approved by the T.C.: Messrs. Walker, Son & Field, house, Kingsgate, for Mrs. J. M. Chambers; Mr. F. Vaux, house, Sixth-avenue, Sand's Cottage Estate, for Mr. F. Vaux; Mr. L. Stewart, house, Road No. 1, Priory Estate, for Mr. H. Morton; Mr. F. Vaux, house, First-avenue, Sand's Cottage Estate, for Mr. F. Vaux; Mr. F. Vaux, house, Sixth-avenue, Sand's Cottage Estate, for Mr. F. Vaux; Mr. C. F. Johnson, house, Mayfield-road, for Mr. A. Webber; Mr. C. L. Waite, two houses, Road No. 3, Priory Estate, for Mr. W. Witting.

BRIGHTON.—A new sub-station is to be erected in Preston at a cost of £6,000.—About £1,500 is being spent on sea defence works between Brighton and Rottingdean.—It is proposed to build a tidal swimming bath at the cost of £60,000. The Borough Engineer is to prepare plans.

BRYNMAWR.—The U.D.C. is to proceed with its unemployment relief schemes for a new filtration bed at the reservoir, and various roads improvements, at a cost of £8,000.—Plans for a new road to Blaenavon are being prepared by the C.C. surveyor, and the scheme is to cost £12,000.—The Council have also resolved to offer the Heathcote Pond to the local Miners' Welfare Committee for development as a recreation park.

BUDLEIGH.—The Council reported the M.H. had sanctioned the borrowing of £950 on behalf of Mr. Robertson for the building of houses.

BURNLEY.—The General Purposes Committee of the Corporation have approved of a scheme for the construction of three tennis courts and a shelter at Scott Park, at a cost of £2,000.—The B.S. has been instructed to prepare a report on the portion of the Palace House site proposed to be used for a central school.—There was no opposition to the scheme for the extension to the sewage works at Altham, estimated to cost £14,000, at the M.H. inquiry.—The R.D.C. are to make application to the M.H. for sanction in respect to the Council's scheme for the construction of 20 houses.

BURY.—The Sewering, Paving, and Streets Committee approved plans for five pairs of houses in Manchester-road, a house in Brandlesholme-road, and grand stands on the Bury Football Ground and Bury Sports Field.

CARDIFF.—Foundations for 12 houses have been laid in Portmanmoor-road, Splott, in connection with the scheme of 42 houses to be erected.

CHORLEY.—The M.H. have approved a new scheme for the erection by the T.C. of 60 houses on the Highfield Estate.

CLACTON-ON-SEA.—As a war memorial for the R.C. Church, it has been decided to provide a lych-gate and to carry out the design of the gate in carved oak, with a tiled roof and a tablet on the inside.

CLEVELEYS.—The Building Plans Committee of the Thornton Council have approved the following plans: House, The Grove, Cleveleys, for Mr. Hartley; pair of houses in Fleetwood-road, for R. H. Booth & Co.; four houses in Slinger-road, for Mr. J. Eyres; pair of houses in Devonshire-avenue, for E. W. Roskill, Ltd.

CLITHEROE.—The T.C. agreed to terms imposed by the M.H. in connection with the erection of 32 houses on land in Henthorn-road.

COBHAM.—The Epsom R.D.C. propose to prepare a town-planning scheme.

COLNE.—The M.O. has been instructed by the T.C. to prepare a report upon the adaptation of the cottage home in Barrowford-road, in connection with the work of maternity and child welfare.—The T.C. have under consideration the widening of Wanless Bridge and the approaches thereto.

COLWYN BAY.—A new assembly hall is to be built at Penrhos College, at a cost of about £15,000.

CONWAY.—The Conway and Llandudno Councils Joint Committee decided to proceed to the construction of the first section of the proposed new main road between the two towns. This involves the widening of the existing section from Tynycoed Hill to Fan Tom. The M.T. have agreed to the scheme which includes the construction of a new road from Llandudno to Deganwy.

COVENTRY.—The E.C. recommends the extension of Stoke Park School and the extension of Barr's Head School.—The Electricity Committee proposes extension of mains, at a cost of £19,356.

COWES.—The M.T. have sanctioned the scheme for the shore road, in continuation of the esplanade, in a westerly direction, linking up with Gurnard, which is part of Cowes. The cost of the new road is estimated at £15,000.

DAWLISH.—The U.D.C. has prepared a scheme for improving the Exeter-road, at a cost of about £5,000.

DERRYCONNER—The B.E. have granted £3,000 for the erection of a national school.

DIDSBURY.—Shops adjoining the Co-operative Stores in Wilmslow-road have been acquired by the Manchester and Salford Equitable Co-operative Society, Ltd., for the purpose of future extensions.—The Union Bank of Manchester, Ltd., have acquired premises in Wilmslow-road for conversion to a branch bank.

DOVER.—Compulsory powers are to be sought to purchase property for the Buckland Bridge and Crabble Hill improvements.—The M.H. has raised no objection to the Council proceeding with a scheme for heating the town hall, &c., before receiving sanction to the loan.—The T.C. has passed plans for the rebuilding of the Archcliffe Fort Inn, Limekiln-street, by Messrs. A. Leney & Co.—For the erection of 15 houses at Dodd's-lane a tender of £8,169 is recommended, and for 10 houses in Buckland a tender of £6,637 is recommended.—The B.S. has been asked by the Housing Committee to submit a report as to the use of a site in the town for the erection of houses on an economic basis without the assistance of the Government subsidy, the purchase of land, the provision of roads and sewers, and all other expenses being taken into account.—The Town Clerk is to inquire if the M.H. will be prepared to give sanction to the borrowing of money for the erection of houses without State assistance.—The tramway track in High-street is to be renewed at a cost of £2,450.

DUBLIN.—Plans passed by the Corporation:—Bungalow, Killester, co. Dublin, for Mr. R. Brophy; house, Church-avenue, Drumcondra, Mr. P. J. Pigott; bungalow, Castle-avenue, Clontarf, Mr. M. T. Molloy.—In converting Kilmainham Courthouse for use as a District Court, £1,400 is to be spent.

DUNDEE.—The congregation of St. Mary's R.C. Church have decided that their war memorial shall take the form of considerable alterations and improvements to their buildings.

EDINBURGH.—The following plans have been approved by the Guild Court: Thomas Fulton, four garages at 127, Trinity-road, Leith; T. S. Henderson, seven bungalows at Queen's-road, Blackhall; Mrs. M. W. Dickson, or M'Kelvie, bungalow at Granton-road; Messrs. M'Kendrick & Co., eight houses at Saughton-avenue; G. Paterson, three houses at Templeland-road, Corstorphine; G. Roberts, villa at Ravelston Dykes; Church of Scotland Residence for Students of Divinity Tees; conversion of two houses at 22, 24, Chalmers-street into hostel; T. Anderson, six houses at Willowbrae-avenue.—The Scottish Rugby Union were granted interim warrant to excavate and lay the foundation for the grand stand at their new ground at Roseburn.

EDMONTON.—U.D.C. passed plans: Detached house at Bush Hill-road, by Mr. S. P. Chapman; six terrace houses at Seaton-street, for Mr. R. Wallis; six semi-detached houses at corner of Bury-street and Queen Anne's-grove, by Mr. E. Kimpron; church hall at St. Stephen's Church, by Messrs. Baines & Son; new shop at Nos. 48 and 50, The Green, by Mr. F. Selby; shed and generator building at Anglo-American Oil Co. depot, Picketts Lock; six houses in Ridge-avenue, by Messrs. Collins & Jones; detached house at corner of Ridge-avenue and Church-street, by Dr. A. E. Tughan.—The U.D.C. propose to build 82 houses on existing foundations. The total estimated cost is £49,668.

ESHER.—The Council have adopted a road-widening scheme, to cost £13,850.

ETON.—The R.D.C. passed plans for the following: Four bungalows, Wraysbury, for Mr. A. Reffell; bungalow, Slough-road, Datchet, for Mr. R. G. King; cottage, Farnham Common, for Mr. C. Barnicoat; four houses, Burnham, for Mr. J. Hyde; house, Langley, for Mr. R. Hawes; house and shop, Farnham Common, for Mr. W. S. Taylor; house, Farnham Royal, for Mr. W. Squire; sewer on the Slough Trading Estate, for the Slough Trading Co.; house, Stoke Poges, for Mr. McCurd; house, Farnham Royal, for Mr. W. Metzner; 12 bungalows on the Remenham Estate, Wraysbury, for Mr. G. N. Smale; house, Gerrards Cross, for the Circle Land Co.; cottage, Langley, for Mr. P. S. Edwards; bungalow, Burnham for Mr. F. Smith; four houses, Burnham, for Mr. F. Smith; three bungalows, Denham, for the Fibrok Products Co., Ltd.; 10 bungalows, Wraysbury, for Mr. A. Reffell; bungalow, Hitcham, for Mr. W. P. Haycock; pair of cottages, Iver, for Mr. A. F. Dutton; bungalow, Burnham, for Mr. J. Norcott; bungalow, Iver, for Miss E. J. Neale; bungalow, Wraysbury, for Dr. Whitla; 12 bungalows, Wraysbury, for Mr. J. Perrin; roads on the Fairfield Estate, for Mr. J. Perrin; two bungalows, Horton, for Mr. C. E. Masters; bungalow, Cippenham-lane, Burnham, for Mr. E. Stockwell.

EXMOUTH.—The Devon County Architect has been instructed to prepare plans for extensions at the Secondary School.

FAILSWORTH.—On the recommendation of the Surveyor's Committee, the Council resolved to make application to the M.H. to borrow £6,022 for private street works.

FETCHAM.—The Epsom R.D.C. approved plans for house in Eastwick-drive, for Mr. W. H. Greatwood; bungalow, in Lower-road, for Mr. F. W. Trethowan; bungalow in Lower-road, for Mr. A. M. McKay.

GODSTONE.—The M.H. has forwarded formal sanction to the borrowing by the Council of the sum of £890, for the purchase of land at Limpsfield for the erection of dwellings for the working classes. The Surveyor submitted the house and lay-out plans, formally approved by the Titsey Estate, and it was resolved that tenders be invited by advertisement for the erection of 12 houses on the Estate.

GREAT BOOKHAM.—Plans passed by the Epsom R.D.C., of houses for Mr. E. Fox, Mr. W. A. Muggeridge, Mr. L. Davis, Mr. W. E. Pickett, Mr. H. W. J. Winter, Mr. O. Higby, Mr. D. W. Scarlett (three bungalows on Lower-road), Mrs. A. Conisbee, Mr. B. Edwards, Mr. N. C. T. Hartley (four bungalows on No. 2 road, Eastwick Park), Mr. A. H. C. Adams, Mr. G. P. Dowe, Mr. C. Barter, Mrs. E. Sweeney, Mr H. A. Bentley, Mr. F. Barnes, Mr. H. L. Oddy, Mr. C. J. Dray, and Mr. A. S. Chugg.

HALE.—The D.C. are proposing a scheme for the erection of 24 houses at Hale Barnes.

HAWKMOOR.—The M.H. has approved the proposal of the Devon C.C. to enlarge Hawkmoor Sanatorium by the provision of accommodation for thirty-two children.

HEANOR.—The U.D.C. decided to submit proposals to the M.H. for the erection of 115 houses.

HEYWOOD.—The T.C. have passed the plans submitted by Mr. A. Kershaw for extensions to Park Mill, Hooley Bridge, Heywood.

HITCHIN.—An inquiry has been held in regard to an application by the U.D.C. for an improvement scheme in the town's slum area, of which Queen-street is the centre.

HORSHAM.—The R.D.C. have made application to the Public Works Loan Board for a loan of £7,555 for the erection at Crawley of dwellings.

HUNSLET.—Plans have been handed in for new store room at Halton. No provision had been made for the mortuary. Estimates were received, and it was found that the erection would cost about £350. The Council then decided to advertise for tenders. The Surveyor reported that the laying of a proper path in School-lane, Colton, would cost about £160.

HURST.—The D.C. approved plans submitted by Mr. W. H. Robinson, of "Berwyn," Higher King-street, for the erection of two bungalows in Broadoak-road.

ILFORD.—Plans passed by the U.D.C.: A. Burch, two houses, 16–18, Woodstock-gardens; F. W. Hitchcock, house, 99, Aldborough-road; F. Fortescue, 16 houses, 29–35, and 48–66, Stainforth-road, 2, Church-road, and 1, Brancastor-road; F. Fortescue, four houses, 12–14, Newbury-road and 11–13, Church-road; F. F. Goddard, bungalow, 1, Baxter-road; W. Fullerton, two houses, 3–5, Hamilton-avenue; A. P. Griggs, 10 houses, 66–84, St. George's-road; P. E. Brand, Ltd., 20 houses, 11–49, Ethelbert-gardens; P. E. Brand, Ltd., six houses, 51–55 and 59–63, Ethelbert-gardens; A. Smith, house, 175, Breamore-road; H. G. Needham four houses, 24–30, Wards-road East; A. Smith, four houses, 153–159, Breamore-road; W. H. Knox, four

* See also our List of Contracts, Competitions, etc.

houses, 13–15 and 14–16, Levett-gardens; W. H. Knox, two houses, 34–36, Parkway; P. E. Brand & Co., Ltd., house, 57, Ethelbert-gardens; Suburban Developments (London), Ltd., lay-out plan of roads and sewers, Valentines Park Estate; J. A. Dartnall, conversion into shop of "Lorne House," High-road, Chadwell Heath, and lock-up shop adjoining; Melbourne & Spyers, 28 houses and new road and sewers, 1–55, Horstead-road; Cottee & Parker, five houses and shops, 217–225, Aldborough-road; A. P. Griggs, 12 houses, 120–142, The Drive; A. P. Griggs, road and sewers, The Drive; P. E. Brand, Ltd., eight houses, 1–15, Avery-gardens; D. J. Barwell, 18 houses, 1–35, Cavenham-gardens; P. E. Brand & Co., Ltd., house, 65, Ethelbert-gardens.

ISLE OF WIGHT.—The C.C. proposes to undertake the maintenance of all the roads in the island.—The question of additional accommodation at the mental hospital is under consideration.

KINGSTON.—A new cattle market is to be erected, at a cost of £5,101.

LIVERPOOL.—Plans for a Catholic Central School for boys in Breckfield-road South have been approved.

LLANDUDNO.—Plans passed: Two houses and shop, Trinity-street, for Mr. H. O. Roberts; two houses, St. Seriols-road, for Mr. Williams; shop, Lloyd-street, for Mr. Holland; house, Conway-road, for Mrs. Knowles; extension to recreation room, East-parade, for Mrs. Smith; house Colwyn-road, for Miss Hind; two houses, Great Ormes-road, for Mr. David Davis.—Lloyd's Bank have instructed their architect to prepare plans for a permanent building at the Craigydon sub-branch.

LONDON (LAMBETH).—Negotiations are taking place between the Lambeth B.C. and the local B.G. for the purchase by the Council of Princess-road Workhouse, which has been closed, for conversion into flats.

LONDON (POPLAR).—The Council propose to erect baths in Wick-lane.

LYTHAM.—The T.C. has under consideration a scheme for the building of new baths at a cost of £30,000.

MALDON.—The R.D.C. passed plans for several houses and a mission hall at Wickham Bishops for Miss Dixon. Extensions are to be made to the water main from Chapel-lane, Tolleshunt Knights, to the main in Chapel-road. The cost is to be about £140.

MANCHESTER.—The following works are proposed by the Unemployment Committee of the City Council for the relief of unemployment:—The new Valley-road, 60 ft. wide, from Smedley-road to Hazelbottom-road, Blackley, £76,400; Nuthurst-road, 50 ft. wide, from New Moston Recreation Ground to Moston Collieries, £34,500; Old Hall-lane, 50 ft. wide, from Wilmslow-road to the L.M.S. Railway, including the widening of a portion of Wilmslow-road, £37,000; a new road, 50 ft. wide, from Church-lane, Harpurhey, to Thorpe-road, Lightbowne, £55,220.—The Chapter and Churchwardens of the Manchester Cathedral have decided to erect a memorial cross outside the Cathedral to the late Dean of Manchester, Dr. J. G. McCormick.—The Diocesan Authorities are proposing to erect on the Wilbraham-road housing estate a new church estimated to cost £25,000, an institute £10,000, and a rectory £3,000.—The Rev. E. A. Glenday, rector of St. Alban's Church, Waterloo-road, Cheetwood, is raising funds for the restoration of the church and churchyard, estimated to cost £15,000.

MANSFIELD.—The T.C. are inviting tenders for concrete houses.

MERTHYR TYDFIL.—The T.C. has purchased land required in connection with a proposed new bridge at Quaker's-yard.—The Housing Committee is considering the site of the proposed 90 houses to be built for people displaced from insanitary areas to be cleared.—The Miners' Welfare Fund recommends a grant of £3,000 towards laying out the Coffee Tavern Field as a recreation ground.—Plans prepared by Messrs. Johnson & Richards, the architects for the proposed central library, have been submitted to the Carnegie Trust, and the Library Committee has now decided upon a site at St. David's.—Application is being made for loans of £6,700 for improving and widening the road from Penybryn to Merthyr; £900 for widening the Merthyr–Aberdare road.—Rocky-road, Gellifaelog is to be widened at an estimated cost of £3,000.—Grag's-plane is to be widened at a cost of £3,500.—The B.S. has been instructed to prepare plans for widening the main road at Quaker's-road and Perrott Hill.

MORETONHAMPSTEAD.—Devon County Surveyor has prepared a scheme for improving the Tavistock main road, at a cost of £2,417.

NEWBRIDGE.—A proposal is on foot to transform a portion of the Barracks into houses.

NORTON.—The East Riding coroner has asked the U.D.C. to provide a mortuary for the town. It has been decided to erect one in the Council Buildings yard.

PAISLEY.—Plans of a new institution for mental defectives, proposed to be erected at Hawkhead Estate, have now been approved by the local District Board of Control. The total cost is estimated at £92,537.

PETERBOROUGH.—Plans passed by the City Council: House at Grange-road, for Mr. Maycock; building of the porter's lodge at the Cathedral Gateway, for the Dean and Chapter; house in Lincoln-road, for Dr. Bonner; house in Alexandra-road, for Mr. H. G. Allen; house in Park-road, for Mrs. Pike.

PORTADOWN.—The U.D.C. has received sanction from the Ministry of Home Affairs for the borrowing of £10,000 to make advances under the Small Dwellings Acquisition Act.

PRESTON.—The E.C. have under consideration the erection of a school adjoining Deepdale Council School, and a school at Frenchwood.—The Streets and Building Committee approved plans for the erection of about 30 houses.—The Parks and Baths Committee are considering a plan for the provision of new baths.—A contract has been entered into for the purchase of the Friends' Meeting House and adjacent property in Friargate by a Catholic organisation.

PUTNEY.—Plans passed: Addition to Messrs. Douglas & Son's premises, Brewhouse-lane; house, Chartfield-avenue; houses in Kingston and Portsmouth roads.

RAWMARSH.—The U.D.C. have under consideration a scheme for bringing up-to-date the Waterworks, at a cost of £11,600.

REIGATE.—The R.D.C. Surveyor made a report on the proposed improvement of the roadway at Lawrence Farm Pond, Buckland. The work would involve the draining off of the water from the whole pond, with the construction of a concrete retaining wall approximately 100 ft. long, and containing about 19 cubic yards of ballast. The wall would be carried to a height of about 6 ft. above the present road level.—Plans approved: Bungalow, Mill Hill-lane, Betchworth, for Miss Surridge; bungalow, Westfield Farm, Lowfield Heath, for Mr. E. Zambuni; house Balcombe-road, Horley, for Mr. H. H. Ross; bungalow, Masons Bridge-road, Horley, for Mr. F. J. Morley; house, Oakwood-road, Horley, for Mr. Sawyer; cottage, Vicarage-lane, Horley, for Mr. A. G. Cook; two houses, Balcombe-road, Horley, for Mr. H. H. Ross; bungalow, Margery, Kingswood, for Mr. C. W. Smith; cottage, Parkwood-road, Nutfield, for Mr E. A. Tickner; three houses, Holmesdale-road, Nutfield, for Mr. C. E. Pease.

ROCHDALE.—The Sub-Committee of the E.C. have decided upon a site for the erection of an elementary school at Whitworth.—The B.G. have sanctioned a scheme of extensive building operations at their institution, the expenditure not to exceed £18,780.—The Lowerplace Liberal Buildings Co., Ltd., have in hand a proposal for the erection of new Liberal Club premises.

ROMFORD.—The foundation stones were laid in connection with the new hospital accommodation, for the B.G. The scheme will cost £98,000.—The M.H. permission to grant financial assistance in respect of 200 houses has been received by the R.D.C.

ROMSEY.—Plans passed by the U.D.C.: House, Plaitford, for Mr. F. Peck; bungalow, Winchester Hill, Romsey, for Mr. H. W. Walden; bungalow, Whitenap, Romsey, for Mr. W. G. Grace; bungalow, Awbridge, for Mr. C. Reynolds; bungalow, Mile Hill, Romsey, for Mr. G. W. Lawne.

ROYTON.—In the County building programme for the year 1925–6 is a new Council school to be erected in High Barn-street.

SALFORD.—Plans passed: Transformer sub-station, St. Paul's School, Moor-lane, Broughton.

SCARBOROUGH.—The Town Clerk has been instructed to complete the agreement with the vendors of Londesborough Lodge, which the Corporation are purchasing for £6,060. The Corporation intend to use it as a museum and also as a conference centre.

SEDGEFIELD.—The R.D.C. passed plans Two houses, Church-lane, Ferryhill, Mr. G. L. Sakeld: house, Coxhoe Messrs. M. R. Draper & Sons; bungalow Windlestone, Mr. W. Bainbridge.—A committee has been appointed to consider the most desirable line of the proposed new road between Foxton and Sedgefield.

SHAW.—Plans were submitted to the T.C. for the erection of a Young Men's Institute for the Shaw Wesleyan Chapel and Sunday School.

SHERINGHAM.—The U.D.C. passed plans: House, Norfolk-road, Miss Smith; house, St. Austin's-grove, Mr. A. Prior.

STOKE-ON-TRENT.—The T.C. has approved schemes for extensions at the Longton sewage works, at a cost of £6,000, new storm water tanks, &c., at the Burslem works, at a cost of £11,500; and storm water outlet main at Hanley, at a cost of £1,400.—Reports are to be circulated amongst members regarding the proposed provision of abattoir accommodation.—Negotiations are proceeding for the acquisition of land at Hartshill for a proposed cemetery extension and for a recreation ground.—The B.S. has been instructed to carry out renovations at the Burslem Old Town Hall.—Coal storage accommodation is to be provided at the central power house, at a cost of about £2,500.—Sanction has been given for a loan of £7,500 for the erection and equipment of an elementary school at Oakhill.—The Cannon-street brickworks are to be purchased for £5,700, and a depot is to be established there at a cost of £750.—The Star and Garter-road, at Longton, is to be widened, at a cost of £22,500.—Extensions and improvements are proposed at the Etruria gas works at a cost of £64,000.—A loan of £3,000 has been sanctioned for extensions to buildings and provision of plant at Hanley destructor works.—A porter's lodge and visitors' waiting hall are to be erected at Bucknall Hospital, at a cost of £2,800.—Land is to be purchased at Hanley-road and developed as a housing site.—A scheme of drainage is to be carried out at Burslem cemetery at a cost of £6,600.—The B.S. has prepared plans for extending Vivian-road, Fenton, along the frontage of Fenton Park, at a cost of £4,270.—A storm water sewer is to be provided, at a cost of £5,740, to relieve flooding in Brook-street, Hanley.—The L.M.S. Railway bridge at Scotia-road, Burslem, is to be rebuilt, the cost being put at £17,000.—Plans have been passed for a bridge over Elgin-street, Stoke, for the Empire Porcelain Co.—Plans have been passed for alterations at the Imperial Picture House, Burslem.—The B.S. has prepared plans for nine houses at Hill-street, Burslem.—A site at Eaton-street, Northwood, is to be purchased for housing.—Land at Cowper-street, Fenton, is being purchased, and plans for houses, &c., are to be prepared by the B.S.

STREATHAM.—Plans passed: Houses, Hill House-road; new streets from Streatham Vale; houses, Upper Tulse Hill; five houses, Stockfield-road.

SUTTON COLDFIELD.—Plans passed by the T.C.: House, Jockey-hill, for Mr. T. W. Bladon; house, Broadfields-road, for Mr. H. T. Jones; bungalow, Jockey-road, for Miss E. Facer; four bungalows, off Sheffield-road, for Mr. T. W. Harbidge; house, Tower-road, for Mr. W. Watson; house, Walmley Ash-road, for Mrs. Hart; house, Somerville-road, for Mr. S. Heatley; bungalow, Fox Hollies-road, for Mr. E. Clink; cottage, Hill Village-road, for Mr. H. J. Thornton; house, Lindridge-road, for Mr. F. Burgess; shop and house, Lichfield-road, for Mr. H. G. Guest; house, Penns-lane for Mr. A. B. Adams; house, Penns-lane, for Mr. Jex; bungalow, Rectory-road, for Mr. W. Pickering; house, Stonehouse-road, for Mr. Fellows; house, Stonehouse-road, for Mr. C. G. Mackay; house, Stonehouse-road, for Mr. Pryce; house, Sherifoot-lane, for Mr. W. H. Aarons; four houses, Tower-road, for Mr. W. Watson; house, Vesey-road, for Miss M. J. Hook; four houses, Western-road, for Messrs. Blackband & Grimson; house, Western-road, for Mr. J. B. Southall; bungalow, Whitehouse Common-road, for Mr. H. Tidy; house, Walmley-road, for Mr. R. H. Walcot; house, Vesey-road, for Mr. E. R. Martin.

SWANSEA.—The Swansea Water Committee is to apply for a loan of £20,000 for the extension of water mains.

THORNTON.—The following plans have been approved by the Building Plans Committee of the T.C.: House and garage for Mrs. Robinson; pair of villas, Lancaster-avenue, for R. Lancaster & Sons; pair of villas, Gordon-avenue, for R. Lancaster & Sons; and pair of houses, Lawsons-road, for Mr. S. Haywood.

THURCROFT.—The erection of an hotel in Green Arbour-road has been commenced.

TORQUAY.—Tenders are being invited by the Devon C.C. for the erection of nurses' quarters at Whitecliffe.

TORRINGTON.—The Great Torrington Town and Alms Land Charities have asked for assistance of the Devon C.C. for widening of Rothern Bridge on the Bideford main road.

TOTTENHAM.—The U.D.C. passed plans: Seven houses, Higham-road, J. E. Large; hall, billiard room, &c., at 8, Bruce-grove, Trades and Labour Council; roads and sewers, Williamson's brickfields, Green-lanes, Harringay; two houses, Mount-pleasant, F. Moore.

TRIM (IRELAND).—The U.D.C. has approved plans for the new technical school.—Application for sanction to a loan of £1,500 in connection with the rebuilding of the Town Hall has been made by the U.D.C.

TUNSTALL.—Funds are being raised by the Catholic congregation for the erection of a new church.

UPMINSTER.—The P.C. has received the formal sanction from the M.H. for the purchase of Clock House.—Provision has been made for the borrowing of £800 for the purchase of land for public walks and pleasure grounds; £900 for the provision of a parish hall. It was decided to apply to the Public Works Loan Commissioners for the necessary money.

WALTHAMSTOW.—The U.D.C. passed plans: Factory restoration, Forest-road, Hookway & Cook; cottage, 16, Hervey Park-road, Miss M. McNamara.

WARLEY.—The County Architect of Worcestershire has prepared plans for a police station, estimated to cost £3,500. The plans have been passed by the Standing Joint Committee.

WARRINGTON.—The T.C. has passed a scheme for widening Manchester-road by the setting back of the Cemetery wall throughout its entire length.—The T.C. has adopted plans prepared by the B.S. for a concrete bridge in place of the existing Buttermilk bridge.—Mr. S. P. Silcock has been appointed architect for the Lymm generating sub-station.—The Town Clerk is to negotiate with Lord Lilford for land for housing schemes.—The B.S. has been instructed to invite tenders for the erection of a further 54 houses on the Reynolds-street site.—The Corporation are going to widen Knutsford-road, the setting back of the river wall and the rebuilding of Black Bear Bridge; the cost of the scheme is estimated at £43,000.—The Corporation are in negotiation for the Bewsey Estate (68 acres) and 33 acres adjoining, for the erection of 1,100 houses.

WATH.—Plans have been approved for the erection of a new cinema at an estimated cost of £20,000, inclusive of land and fittings.

WAYLAND.—Plans passed by the R.D.C.: Church hall at Eccles; bungalow at Carbrooke.

WEST BROMWICH.—The Joint Committee of the West Bromwich and Walsall Poor Law Unions has decided to erect buildings.

WESTHAMPNETT.—The Council agreed to the purchase of a suitable building site in Chalcroft-lane, North Bersted, and reported that the M.H. had approved of the proposals of the Council to make grants in respect of fifty additional houses.—The Committee reported having given instructions for the preparation of lay-out plans in connection with the sites which it is proposed to acquire at North Bersted, Walberton, and Yapton.

WEST HARTLEPOOL.—Plans passed by the T.C.: West Hartlepool War Memorial Committee, eight Cottage Homes, Ryehill-gardens and Elmwood-road; Mr. J. L. Fairless, house, Caledonian-road; Miss Graham, house, Caledonian-road; Mr. J. McGowan, two-storied cottage, Station-lane, Seaton Carew.

WHITBY.—Plans for two houses to be erected by Mr. W. Poole on the Ruswarp Hall Estate have been approved by the U.D.C.

WIGAN.—The Corporation are proposing converting their property known as "The Elms," and "Bank House," into four dwelling houses to plans prepared by the B.S.

WITHERNSEA.—Plans passed by the Council: House on Queen's-promenade.

WITHINGTON.—The Manchester Corporation are proposing to erect a new library on the site of the present premises at the corner of Wellington-road and Wilmslow-road, at an estimated cost of £14,000.—The Congregational Church, Palatine-road, which was destroyed by fire in 1914, is to be rebuilt at an estimated cost of £15,000.

WORCESTER.—The T.C. has under consideration the provision of a secondary school for girls.

WORTHING.—The Governors of the Worthing Hospital approved plans for the building of a new administrative block.

YORKS.—The West Riding C.C. intend to entirely remake the Great North-road from Doncaster to Red House, a distance of four and a-half miles, at a cost of £100,000. An asphalt footpath is also to be provided.

FIRES.

WYMONDHAM.—A fire took place at the saw mills of the Briton Brush Co. recently.

PRICES CURRENT OF MATERIALS

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Fjettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 5 0
Do. grooved for plaster	2 15 3	Do. Bullnose ..	9 15 0
Do. Bullnose ..	3 6 3	Blue Wire Cuts	7 5 0

Best Stourbridge Fire brick:—

2½ in.	8 11 0	3 in.	10 3 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers ..	23 0 0	D'ble Str'tch'rs	31 10 0
		D'ble Headers	28 10 0
		One Side and two Ends ..	32 10 0
Headers	22 10 0	Two Sides and one End	33 10 0
Quoins, Bullnose and 4½in. Flats	29 10 0	Splays and Squints	31 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. "	2 6	4 in. "	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand	15 6	" "
¾ in. Shingle for Ferro-Concrete	14 0	" "
½ in. "	15 0	" "
¾ in. Broken Brick	10 6	" "
Pan Breeze	7 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 5 1/- alongside at Vauxhall in 80-ton lots. £3 3 6

Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" " Fine	5 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 11 9
Chalk Lime	2 11 9
Best Ground Blue Lias Lime	2 4 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in sacks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE. Delivered at any Goods Station, London.	
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	27/-
Sawn two sides "	32/-
Sawn three or four sides "	
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) ..... Per Ft. Super	5 6
6 in. rubbed two sides, ditto ..... "	6 0
3 in. sawn two sides slabs (random sizes) "	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... "	1 6½
1½ in. to 2 in. ditto, ditto ..... "	1 4
HARD YORK— Delivered at any Goods Station London.	
Scappled random blocks ..... Per Ft. Cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super.) ..... Per Ft. Super	5 1½
6 in. rubbed two sides ditto ..... "	6 1½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 1½
2 in. self-faced random flags .. Per Yard Super	9 0

ARTIFICIAL STONE.

Delivered in London Area in full van loads, per ft. cube:—Plain, 6s. 6d.; Moulded, 7s. 9d.; Cills, 8s. 3d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£32 0	3 × 6	£23 0
4 × 9	28 0	3 × 11	28 0
4 × 8	26 0	2 × 11	28 0
4 × 7	26 0	3 × 9	26 0
3 × 8	24 0	2½ × 9	26 0
3 × 7	23 0	3 × 4½	24 0
2½ × 7	23 0	3 × 4	24 0

PLANED BOARDS.

1 × 11	£34 10	1 × 9	£32 0

WOOD (*Continued*).

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	21/-	1¼	32/6
¾	23/-	1½	37/6
1	25/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	25/-
1¼	32/6
1½	37/6

MATCHINGS (BEST).

Inches	per sq.
¾	16/6
¾	20/-
1	25/-

Inches	BATTENS	s. d.
¾ × 2		2 6 per 100 ft.

SAWN LATHS.

Per bundle				0	2 6
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
" do. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per ft. cube	0	14 0	to	—	
American Whitewood planks, per ft. cube ..	0	12 0	to	0	14 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt. ..	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 12 6
Ditto hand made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) { Hand made	0 9 6
{ Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	16 10 0	⅝ in. to ¾ in...	13 10 0
⅜ in.	14 10 0	1 in. to 2½ in...	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes. All sizes.	Fittings. ½"&up. ¼"to½" inclusive.	Flanges ½"&up. ¼"to½" inclusive.
Black Gas....	50 %..50 %	..47½ %..60 %	..57½ %
Blue Water ..	45 %..45 %	..42½ %..55 %	..52½ %
Red Steam ..	40 %..40 %	..37½ %..50 %	..47½ %
Galv'd Gas ..	35 %..40 %	..37½ %..50 %	..47½ %
" Water.	28½ %..35 %	..32½ %..45 %	..42½ %
" Steam	22½ %..30 %	..27½ %..40 %	..37½ %

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.
O.G. GUTTERS.			
3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	8 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

	Per ton in London. £ s. d.		£ s. d.
IRON—			
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 10 0	—	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0 0
Hoop iron, basis price	16 10 0	..	17 10 0
" Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—Ordinary sizes to 20 g...	15 0 0	..	16 0 0
" " " 24 g...	16 0 0	..	17 0 0
" " " 26 g...	18 0 0	..	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g...	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.....	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g...	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets—Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24 10 0
Sheets Galvanised Flat, Best quality—Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker ..	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g. ..	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)

	£ s. d.
LEAD—Sheet, English, 4 lb. and up	44 0 0
Pipe in coils	44 10 0
Soil Pipe	47 10 0
Compo pipe	50 10 0

NOTE—Country delivery, 30s. per ton extra; lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	31	0 0	.. —
Do., ex country, carriage forward ..... per ton	32	0 0	.. —

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps ..	33/-	41/-	56/-	101/-	per doz
8 lbs. S. traps ..	35/-	45/-	66/-	126/-	"

COPPER—	£ s. d.	
Strong Sheet .... per lb.	0 2 3	.. —
Thin " .... "	0 2 4	.. —
Copper nails .... "	0 2 3	.. —
Copper wire .... "	0 2 4	.. —
TIN—English Ingots "	0 2 6	.. —
SOLDER—Plumbers' "	0 1 2	.. —
Tinmen's .... "	0 1 4	.. —
Blowpipe .... "	0 1 5	.. —

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes .....per gallon	0 3 9
" " " in barrels .... "	0 3 3 11
" " " in drums .... "	0 4 2
Boiled " " in barrels .... "	0 4 2
" " " in drums .... "	0 4 5
Turpentine in barrels ..... "	0 3 9
" in drums (10 gall.) "	0 6 0
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	57 0 0

GENUINE WHITE LEAD PAINT—
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots

per ton delivered	80	0	0
Red Lead, Dry (packages extra) .... per ton	52	0	0
Best Linseed Oil Putty ..... per cwt.	0	16	0
Filocol ..... per cwt.	0	15	0
Size, XD Quality ..... fkn.	0	3	6

[Continued on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
15 oz. fourths ..	3½d.	32 oz. fourths	8½d.
15 „ thirds	4½d.	32 „ thirds	10½d.
21 „ fourths ..	5d.	Obscured Sheet. 15 oz.	4d.
21 „ thirds	6½d.	„ „ 21 „	5½d.
26 „ fourths ..	6d.	Fluted 15oz. 6½d. 21oz.	9½d.
26 „ thirds	7½d.	En'lled 15oz. 5½d.,21 oz	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
¼ Rolled plate	4½d.
⅜ Rough rolled	5½d.
½ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 0
Fine Copal Flatting	ditto	1 0 0
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 10 0
Best Black Japan		0 10 6
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 0
Berlin Black		0 14 0
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 119, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

GROOM DANIELS & CO., LTD. (198,707). Registered June 18. 1, Military-road, Colchester, Essex. Timber, slate, cement, and general builders' merchant. Nominal capital, £40.000.

J. LOTHIAN & CO., LTD. (199,598). Registered July 29. 14, Sovereign Mews, Cambridge-street, W.2. Painters, decorators, contractors, &c. Nominal capital, £3,000.

DODMAN & CARTER, LTD. (199,627). Registered July 30. 480, Fulham-road, S.W.6. Builders and contractors, &c. Nominal capital £500.

NORTHERN STEEL ERECTING CO. LTD. (199,655). Registered July 31. Contractor for the erection of steel and other constructions. Nominal capital, £2,000.

MITCHELL BROS. (BUILDERS), LTD. (199,640). Registered July 30. Builders and contractors. Nominal capital, £7,000.

BROWN & MAKINS, LTD. (199,621). Registered July 30. 195, Uxbridge-road, Shepherd's Bush, W.12. Builders, decorators, contractors, &c. Nominal capital, £1,000.

ALBERT SHARP, LTD. (199,508). Registered July 25. Builders and contractors. Nominal capital, £4,000.

IVERSEN & MORGAN, LTD. (199,419). Registered July 21. Chez Nous, South View-road, South Benfleet, Essex. Builders and contractors, &c. Nominal capital, £1,000.

SYKES & SON, LTD. (199,712). Registered August 2. Builders and contractors. Nominal capital, £3,000.

GLENWOOD BUILDING AND CONSTRUCTION COMPANY, LTD. (199,700). Registered August 2. 636, London-road, Isleworth, Middlesex. Builders. Nominal capital, £2,000.

FREDERICK DIXON (SCARBOROUGH), LTD. (199,681). Registered August 1. Joiner, builder, and general contractor. Nominal capital, £1,000

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND

Stirling.—BATHS.—The Miners' Welfare Committee have agreed to subscribe the sum of £7,000 towards the cost of providing the proposed public baths.

Drumoyne.—HOUSES.—The Housing Department of Glasgow Corporation propose to build 10 steel houses and a block of timber houses at Drumoyne.

Milngavie.—HOUSES.—The T.C. proposes to proceed with the erection of 36 houses on Section No. 2 of the housing scheme.

Torry.—SCHOOL.—The Aberdeen E.A. proposes to erect a new intermediate school; negotiations are taking place for a site.

Helensburgh. — REBUILDING. — Considerable progress has been made with the initial work in connection with the rebuilding of the West Church. Plans have been prepared, measurements taken, and schedules issued.

Edinburgh.—CHURCH.—Under the will of the late Mr. W. Crambe Reid, of Edinburgh, his trustees are directed to build a church on the south side of Edinburgh, to be named the "Reid Memorial Church." This has to be built from the residue of the estate, which may amount to £45,000 or £50,000.

Montrose.—CONVERSION.—The T.C. has approved plans for the conversion of a gospel hall in Mill-street to quarters for the nurses in the service of the Montrose Nursing Association.

Perth.—GRAND STAND.—The directors of the St. Johnstone Football Club propose to erect a grand stand on the Muirton site, and have now accepted offers amounting to £9,500 for the work.

HOUSING PROGRESS IN SCOTLAND

THE following figures show the progress that has been made in State-aided housing schemes in Scotland to August 31, 1924:—

	Completed.	Under Construction.
1919 Act	22,620	2,798
Private Subsidy Schemes.....	2,324	—
Slum Clearance Schemes.....	533	1,708
1923 Act	618	4,471
	26,095	8,977

Of the total number of houses completed and under construction under the 1923 Act, 1,918 are by the local authorities, and 3,171 by private enterprise.

Scottish War Memorial.

A memorial was recently unveiled at Beaumont Hamel to the 51st (Highland) Division. The memorial takes the form of a granite cairn, rough-hewn, 19 ft. in height, and surmounted by the statue of a Highlander. The total cost of the Highlanders' memorial has been about £8,000. The architect of the memorial is Mr. A. G. Bryett, A.R.I.B.A., London, and the sculptor, Mr. G. H. Paulin, A.R.S.A., Glasgow. Messrs. M'Donald & Creswick, Ltd., Edinburgh, are the contractors for the bronze work; Messrs. Garden & Co., Aberdeen, for the granite work; and Messrs. Soille Frères, Brussels, for the paving and building.

Change of Address.

Messrs. The Sunlight Enamel and Paint Co., Ltd., have removed to 31–32, Grosvenor-place, London, S.W.1.

The London Brick Co.

Messrs. The London Brick Co. & Forders announce a further interim dividend of 5 per cent. (making 10 per cent.) on Ordinary Shares.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons'	Bricklayers'	Plasterers'	Labourers.
Aberdeen	1/8	1/8½	1/8	1/8	1/8	1/8	1/6				1/0½
Airdrie	1/8	1/8	1/8	1/8	1/8	—	1/6½				1/3
Alexandria	1/8	1/8	1/8	1/8	1/8	1/8	—				1/2½ to 1/3½
Arbroath	1/7	1/7	1/7	1/7½	1/7	1/7	1/5½				1/1½
Ayr	1/8	1/8	1/8	1/8	1/8	1/8	1/6½				1/3
Bathgate	1/8	1/8	1/8	1/8½	1/8	1/8	1/6½				1/2 to 1/3
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4				10d. to 1/-
Bo'ness	1/8	1/8	1/8	1/8	1/8	1/8	1/8				1/3
Coatbridge	1/8	1/8	1/8	1/8	1/8	—	1/6½				1/3 to 1/3½
Dumbarton	1/8	1/8	1/8	1/8	1/8	1/8	1/6½				1/3½
Dumfries	1/6	—	1/6	1/6	1/6	1/6	1/6				1/3½
Dundee	1/8	1/8	1/8	1/8	1/8	1/8	1/8				1/3
Dunfermline	1/8	1/8	1/8	1/8	1/8	1/8	1/6½				1/3½
Edinburgh	1/8	1/8	1/8	1/8	1/8	1/8	1/8				1/3½
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½				1/2½
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6				1/2
Galashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6				1/1½
Glasgow	1/8	1/8	1/8	1/8	1/8	1/8	1/8				1/3½
Greenock	1/8	1/8	1/8	1/9	1/8	1/8	1/7				1/0½ to 1/3½
Hamilton	1/8	1/8	1/8	1/9	1/8	1/8	1/6½				1/3½
Hawick	1/6	1/6	1/6	1/6–1/6½	1/6	1/6	1/6				1/2
Helensburgh	1/8	1/8	1/8	1/9	1/8	1/8	1/7				1/3½
Inverness	1/5	—	1/4½	1/4	1/5	1/5	1/4				11d. to 1/2
Kilmarnock	1/8	1/8	1/8	1/9	1/8	1/8	1/7				1/3½
Kirkcaldy	1/8	1/8	1/8	1/8	1/8	1/8	1/6½				1/3½
Kirkwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3				1/0
Lanark	1/7½	1/8	1/7½	1/9	1/7	1/7	1/6				1/- to 1/3½
Leith	1/8	1/8	1/8	1/8	1/8	1/8	1/8				1/3½
Motherwell	1/8	1/8	1/8	1/9	1/8	1/8	1/6½				1/3½
Perth	1/8	1/8	1/8	1/9	1/8	1/8	1/6½				1/3
Stirling	1/8	1/8	1/8	1/8	1/8	1/8	1/6½				1/3½
Stirlingshire (Eastern District)	1/8-1/10	1/8-1/10	1/8	1/9	1/7	1/8	1/6½				1/3½
Wishaw	1/8	1/8	1/8	1/9	1/8	1/8	1/7				1/3½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 531

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty cambor or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1¼"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	3d.

STAIRCASES.

		1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets		2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed		1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	"	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d
Milled lead and laying in flashings and gutters	per cwt.	59	0
Do. Do. in flats	"	57	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/1	1/9	1/11	3/5	4/2	
Do. service	"	1/8	2/2	2/7	3/10		
Do. soil	"						7/6
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	2
Do. Do. Sirapite	" "	2	4
Do. Do. Keen's	" "	3	3
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	8
26 oz. Do	" "	1	0
Obscured sheet	" "	1	1
¼ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	10½
¼ in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to new buildings only. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

SEWERAGE*

The fact that this book has run into nine editions with a total issue of twenty-six thousand is *prima facie* evidence of its utility, and coming from the pen of an expert of the standing of Professor Folwell every reliance may be placed upon the information therein and respect be given to the opinions expressed.

The book is divided into two parts, respectively dealing with sewerage and sewage disposal. In Part 1, the fundamental principles of sewerage are first dealt with at considerable length, then follow sections dealing with the collection of data, designing of schemes, details of construction, supervision and maintenance. In Part 2, the smaller of the two parts, devoted to sewage disposal, the principles are first stated, as before, then the various methods by which the principles are applied are briefly set out. There are three appendices dealing respectively with testing sewage, the State Health Board requirements as to plans, and a list of sewage treatment plants in the United States.

Sewerage is dealt with in sections relating severally to the composition and amount of sewage; forecasting future population; rates of rainfall and run off from the surface; sizes and shapes of sewers and the velocity of flow therein; flushing, cleaning and ventilation of sewers; manholes, junctions, inverted siphons, &c.

The book does not instruct how to design a particular scheme, but it gives information of the greatest value for the design of any scheme. It abounds with practical hints and, although no book can take the place of practical experience, its study, either precedent to or contemporaneous therewith, would be greatly beneficial not only to the student but to the practising engineer. Those who are engaged in allied branches of construction, which only incidentally touch sanitary matters, would get a better view of the perspective of the subject than by reading dozens of other books that have been published, and would thus be the better able to understand and sympathise with the difficulties of any problem. There is danger, however, to the inexperienced in the bare enumeration of various methods which have been tried from time to time, without an accompanying explanation as to why they are inapplicable to general practice, or pointing out the troubles which may arise from their adoption. For instance, the ventilation of house drains through special flues in the chimney breasts (p. 97) is mentioned without comment, but no sanitary engineer would dream of permitting such an arrangement nowadays.

As would be expected the examples quoted and the illustrations used are taken from American practice, and some of the terms used may be unfamiliar to many British readers; but the meaning is unmistakable and the principles are the same all the world over; it is one of the few books written in America which are fully applicable to this country. There are several matters which may be referred to and legitimately criticised, without it being inferred that they detract unduly from the value of the book. The method of building up of a formula is well set out (p. 62), but the non-mathematical reader might find some difficulty at first in seeing the meaning of the letter *f*. There is no special reference to or explanation of the *proportional* velocity and discharge diagram facing p. 64. Most British engineers think there are very grave disadvantages in the use of 2-in. pipes for house drains (p. 79). No particular steps are suggested for rendering it impossible for pollution from sewers to enter water mains through services to flushing tanks (p. 92 and 200). The statement that the air in well-ventilated sewers is generally purer than that found in theatres, churches, &c. (p. 94) requires amplification. In dealing with the ventilation of sewers it is stated that "in England, where deposits in sewers are much more common than in this country, elaborate flap valves and seals are used in the house-connections in a number of cities" (p. 96). There are, of course, still a few sources of deposit left here as a relic of the past, but further information as to the elaborate flap valves on house connections would be interesting. It is customary in this country to use the same horizontal scale for plans and sections. Differing scales are recommended on p. 134, although on the accompanying diagram similar scales are employed. The suggestion that floats should be followed night and day for three or four days in order to test the flow of the tidal currents from an outfall sewer could only apply to a discharge in the upper reaches of a tidal river and should be so qualified. "Flight sewers" (p. 165) are not explained in the section to which cross reference is made (Art. 38). All manholes illustrated are circular on plan, British practice in general favours a rectangular shape, although many circular ones are built. The special combination manhole for storm water and house drainage sewers (p. 196) is an atrocity that is hardly likely to be copied here. The practice of ventilating a sewer into a flushing chamber (p. 200 and 201) is not a good system, and if the pipe is intended as an overflow it should be trapped. Catchpit-gullies of 500 gallons capacity or thereabouts (p. 205) are illustrated as being the normal practice. Nothing so large is customary here under any circumstances, and pot gullies are not referred to. Sewers and drains are recommended to be graded by stretching a cord vertically over the pipes (p. 264); the British system of sight rails is not referred to. The reference to rotary sewage distributors (p. 384) is very brief, as it is believed there is only one in America; on the other hand, considerable space is devoted to fixed sprays. The index is an extensive one, but there is so much in the book that it is not to be wondered at that there are a number of omissions.

* "Sewerage: The Designing, Constructing and Maintaining of Sewerage Systems and Sewage Treatment Plants." By A. Prescott Folwell, M.Am.Soc.C.E. Ninth edition. (London: Chapman & Hall, Ltd.) Price 20s. net.

TRADE NEWS

The directors of Messrs. Bell's United Asbestos Co., Ltd., have declared an interim dividend on the ordinary shares of 6d. per share, being 2½ per cent. (actual), less income tax, on account of the profits of the current year.

The offices of Messrs. The British Pipeless Central Heating, Ltd., have been transferred to 57-61, Pershore-street, Birmingham.

Messrs. The Vulcanite Co., Ltd., inform us that the flat roof of the Nurses' Home at Reading, recently illustrated in *The Builder*, was covered with their patent vulcanite roofing, and the top surface finished with ½ in. of tarmacadam. The area covered was approximately 7,000 super ft.

New Methods of House Construction.

The committee which has been set up under the chairmanship of Sir Ernest Moir to inquire into new methods of house construction met recently in London. With a view to expediting their investigation the committee would be glad to receive as soon as possible any further proposals for new systems of house building or for new materials. All communications on the subject should be addressed to the Secretary, Mr. T. H. Sheepshanks, Ministry of Health, Whitehall, S.W. 1.

Building Trades Operatives.

AT the resumed meeting of the National Federation of Building Trades Operatives at Blackpool, a resolution was passed asking that each society affiliated to the Wages and Conditions Council be recommended to give six months' notice to terminate the present agreement, with a view to setting up an agreement which would be more in accordance with the circumstances operating in the industry. It was stated that the bricklayers' and plasterers' societies had already given notice to do this. The notices will probably be tendered before September 29, to take effect on March 25, 1925.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

*** Denotes *accepted*. † Denotes *provisionally accepted*.**
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

BEDLINGTON.—For erection of a Secondary School for the Northumberland C.C. Mr. C. Williams, Director of Education, The Moot Hall, Newcastle:—

*Henry Kelly, Ltd., Newcastle-upon-Tyne	£21,919 8 7

BOLTON.—For electrical installation at Fishpool Institution, Townleys Hospital, and the Hollins Cottage Homes, for the B.G. Divided between:—

*Bolton Corporation	£1,537 10
*Farnworth District Council	1,742 15

BRIDLINGTON.—For covering reservoir at waterworks, for the T.C.:—

*Squires & Son, Selby	£4,208 8

BRIDLINGTON.—For erection of a house in Lamplugh-road, for Mrs. J. Newton. Mr. F. Vaux, architect and surveyor, Danesmoor Chambers, Quay-road:—

*John Sawdon, Bridlington	£1,075

CHELMSFORD.—For erection of 50 houses (42 slated, eight tiled, including drainage, paths and fences) on the Boarded Barns Estate, for the T.C. Mr. E. J. Miles, Borough Engineer, Town Hall:—

	Steel Sashes.	Wood Sashes.
*G. J. Hawkes & Sons, Chelmsford	£22,351 8 4	£22,459 16 4
T. J. Bailey, Chelmsford	22,409 0 0	22,539 0 0
A. Holmes, Chelmsford	22,587 10 0	22,678 10 0
H. Potter, Chelmsford	22,860 0 0	22,990 0 0
W. Jones, Ltd., Westminster	22,929 7 4	22,954 7 4
F. J. & A. A. Lowe, Writtle	—	23,505 10 0

COLNE.—For construction of relief sewers in the Primet Bridge District, for the Corporation:—

*James Byrom, Ltd., Bury	£8,020

DENTON.—For erection of 10 houses, for the U.D.C. Messrs. Thorpe & Collier, MM.S.A., architects, 66, Deansgate, Manchester. Quantities by same:—

F. Livesley & Son, Denton	£7,200 0 0
Fred Booth, Gee Cross, Hyde	7,162 5 6
J. Bramall & Son, Hyde	7,100 0 0
John Newton, Gee Cross, Hyde	7,083 6 6
J. Hinchliffe, Dukinfield	7,050 0 0
D. Turner & Son, Denton	6,800 0 0
J. Clayton & Sons, Denton	6,120 11 0
J. Hardy & Son, Denton	6,000 0 0
*J. B. Catlow, Denton	5,950 0 0

DUBLIN.—For additional waiting-room at the Tuberculosis Dispensary, Charles-street:—

‡Municipal Workshops	£930

EPSOM.—For erection of 20 houses in Banstead and Feltham, for the R.D.C.:—

*A. Bean, Banstead	£9,780

HALESOWEN.—For construction of a portion of the new Cakemore-road:—

*G. Law	£4,301

HEMSWORTH.—For erection of 18 houses at Highfields, for the U.D.C. Mr. A. Wright, Surveyor, Council Offices, Barnsley-road:—

De Burgh & Sprakes, Doncaster	£9,119 5
G. B. Hillier, Hemsworth	9,000 0
W. Hanley & Sons, Hemsworth	9,000 0
*W. Jennings & Sons, Barnsley	7,915 10

SALFORD.—For sewering, levelling and paving:—

*Wilson & Wilkinson, Pendleton—Street behind Nos. 193–231, Bolton-road, Nos. 2–44, Fairfield-street and gables Nos. 211 and 213, Bolton-road, and Nos. 22 and 24, Fairfield-street, Pendleton	£461 10 2
Street behind Nos. 197–251, Littleton-road, Nos. 1–55, Mackenzie-road and gables, Nos. 223 and 225, Littleton-road and Nos. 25 and 27, Mackenzie-road, Broughton	713 16 2
Street behind Nos. 2–50, Mackenzie-road, Nos. 1–45, Hafton-road and gables, Nos. 28 and 30, Mackenzie-road and Nos. 23 and 25, Hafton-road, Broughton	578 6 2
Street behind Nos. 253–289, Littleton-road and Nos. 2–42, Valencia-road, Broughton	364 16 0
Street behind Nos. 1–41, Valencia-road and Nos. 2–42, Ukraine-road, Broughton	368 18 0
*Bethell & Sons, Sale—Marston-road, Broughton, from junction of Waterpark-road towards Leicester-road, to a point 163 lin. yds. in an easterly direction	1,575 13 0
Edward-avenue, Pendleton, from Weaste-lane to a point 166 yds. in a south-westerly direction	1,509 10 0
Hugh Oldham-drive, Broughton, from Lower Broughton-road to the end	1,220 10 5

IFIELD.—For erection of 12 houses, for the Horsham R.D.C. :—
*R. Easton £5,345

IFIELD.—For erection of four houses, for the Horsham R.D.C. :—
*W. Sired & Sons, Horley £2,210

SALFORD.—For the erection of a static transformer sub-station in Rectory-street, Prestwich :—
*J. F. Moore, Eccles..... £976

SHERBURN HILL.—For erection of a concert hall in connection with the Miners' Welfare Scheme, for the Sherburn Hill Colliery Welfare Committee. Mr. F. Charlesworth, Heather View, Littletown :—
A. Rowe, Horden, near Durham £2,315 11 10
*Whittingham Bros., Shadforth, Durham 2,280 0 0

ST. PANCRAS.—Steelwork for boiler house at power station, for B.C. :—
‡E. C. & J. Keay, Ltd., Birmingham.. £4,951

STEETON (YORKS.).—For erection of seven houses for the Keighley R.D.C. Mr. J. N. Clarkson, Clerk, 40, North-street, Keighley :—
Mason—
Thomas Atkinson, Eastburn.. £1,660 0 0
Slater—
William Thornton, Bingley .. 210 0 0
Joiners—
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